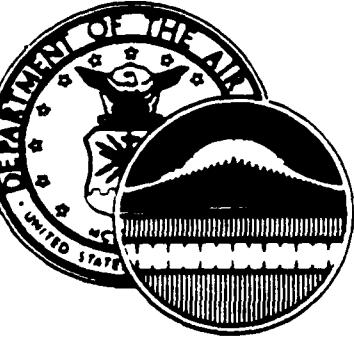
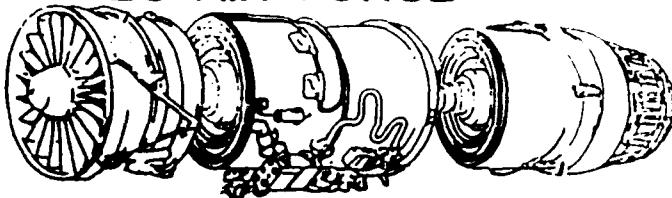


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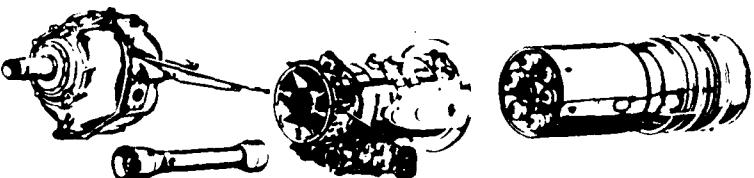


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UNITED STATES AIR FORCE



OCCUPATIONAL SURVEY REPORT



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ELECTED
SEP 18 1989
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AEROSPACE PROPULSION CAREER LADDER

AFSC 454X0A/B (FORMERLY 426X2/X3).

AFPT 90-426-842

JULY 1989

OCCUPATIONAL ANALYSIS PROGRAM
USAF OCCUPATIONAL MEASUREMENT CENTER
AIR TRAINING COMMAND
RANDOLPH AFB, TEXAS 78150-5000

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HQ TAC/TTGT	1		1 Set	
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TABLE OF CONTENTS

	<u>PAGE NUMBER</u>
PREFACE.	iii
SUMMARY OF RESULTS	iv
INTRODUCTION	1
Background	1
SURVEY METHODOLOGY	2
Survey Development	2
Survey Administration.	3
Survey Sample.	3
Task Factor Administration	5
SPECIALTY JOBS (Career Ladder Structure)	5
Specialty Structure Overview	6
Group Descriptions	8
Comparison of Specialty Jobs	21
Comparison to Previous Survey.	21
ANALYSIS OF 426X2/426X3 DAFSC GROUPS	22
AFR 39-1 SPECIALTY DESCRIPTIONS FOR AFSCs 454X0A/B AND 45490 (AFSCs 426X2/X3, 42699).	30
AFSCs 426X2 AND 426X3 TRAINING ANALYSIS.	36
Training Emphasis and Task Difficulty Data	37
AFSC 426X2 Training Issues	37
AFSC 426X3 Training Issues	53
JOB SATISFACTION ANALYSIS.	68
IMPLICATIONS	78
APPENDIX A	79
APPENDIX B	80

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PREFACE

This Occupational Survey Report (OSR) presents the results of a detailed Air Force occupational survey of the Aerospace Propulsion career ladder:

AFSC 454X0A - Aerospace Propulsion (Jet Engines) (Formerly AFSC 426X2 - Jet Engine Mechanic)

AFSC 454X0B - Aerospace Propulsion (Turboprop and Turboshaft Propulsion) (Formerly AFSC 426X3 - Turboprop Propulsion Mechanic)

AFSC 45490 - Aerospace Propulsion Superintendent (Formerly AFSC 42699 - Aircraft Propulsion Superintendent)

The specialties covered in this OSR were involved in a direct classification conversion as of 31 October 1988. All data on these specialties, however, were collected prior to the conversion. Thus, to avoid confusion, all data displays and discussion throughout the OSR will continue to use the old classification numbers. Authority for conducting occupational surveys is contained in AFR 35-2. Computer products used in this report are available for use by operations and training officials.

The survey instrument for this project was developed by Mr Donald Cochran, Inventory Developer. Technical Sergeant Joseph Seitz and Mr Wayne Fruge provided computer support for the project. First Lieutenant Jose E. Caussade, Occupational Analyst, analyzed the data and wrote the final report. Administrative support was provided by Mr Richard G. Ramos. This report has been reviewed by Lieutenant Colonel Charles D. Gorman, Chief, Airman Analysis Branch, USAF Occupational Measurement Center.

A Training Requirements Analysis (TRA) is being accomplished in conjunction with this OSR. The TRA will provide a comprehensive data base in support of career ladder training decisions. The TRA consists of three sections: (a) System Overview - an overall perspective of career ladder training; (b) Task Analysis - consisting of detailed training decision data for career ladder technical tasks; and (c) Training Requirements/Recommendations - giving recommendations on what should be trained, when training should occur, and where training should be provided.

Copies of this report are distributed to Air Staff sections, major commands, and other interested training and management personnel (see Distribution on page i). Additional copies are available upon request to the USAF Occupational Measurement Center, Attention: Chief, Occupational Analysis Division (OMY), Randolph Air Force Base, Texas 78150-5000.

PERRY P. TINDELL, Colonel, USAF
Commander
USAF Occupational Measurement
Center

JOSEPH S. TARTELL
Chief, Occupational Analysis Division
USAF Occupational Measurement
Center

SUMMARY OF RESULTS

1. Survey Coverage: Survey results are based on responses from 5,427 AFSC 426X2, 426X3, and 42699 personnel. The sample was broken down into 4,206 AFSC 426X2 individuals and 1,010 AFSC 426X3 career ladder members. Additionally, 211 9-skill level (AFSC 42699) personnel participated in the survey sample.
2. Specialty Structure: Three major technical jobs, accounting for 59 percent of the total sample, and several smaller, more specialized jobs were identified. While diverse in the number of functional areas, personnel exhibit a good degree of uniformity in many of the tasks performed across the two AFSCs. Variations within these jobs were easily distinguished by career ladder and type of engine.
3. Career Ladder Progression: Each career ladder has 3- and 5-skill level personnel essentially performing the same functions. At the 7-skill level, while supervisory tasks are the most commonly performed tasks, most of their total job time is still spent in "hands on" technical duties. AFSC 42699 personnel have a very managerial job description consisting of many inspecting and evaluating type tasks. AFR 39-1 Specialty Descriptions are generally descriptive of the career ladder's responsibilities. Consideration should be given to removing maintenance of turbojet missile engine functions from the Descriptions.
4. Training Analysis: Due to the number of specific areas employing AFSC 426X2/X3 personnel, many items in each career ladder's STS and POI matched to tasks performed by low percentages of career ladder groups. Strict adherence to appropriate regulations would obligate these areas be removed from the training documents. Enough latitude is provided in the regulations, however, to set up alternative means of reviewing these documents. Subject-matter experts are encouraged to closely review these documents, using OSR data, to determine document areas needing improvement. Three-skill level proficiency codes in the STSs need to be examined to ensure good representative 3-skill level formal training is being provided. Additionally, each training document had several unreferenced tasks needing examination for possible inclusion.
5. Job Satisfaction: High levels of job satisfaction were noted in both career ladders. A few jobs, such as Technical Order and Nonpowered Support Equipment Personnel, displayed lower job satisfaction indicators than most other jobs.
6. Implications: The propulsion specialty exhibits some diversity in the functional areas in which personnel are employed. This affects the training documents which revealed several areas matched to tasks performed by low percentages of career ladder groups. A number of methods for reviewing these documents are discussed.

OCCUPATIONAL SURVEY REPORT
JET ENGINE/TURBOPROP PROPULSION
(AFSC 426X2/426X3, 42699)

INTRODUCTION

This report summarizes the results of an occupational survey of the Jet Engine/Turboprop Propulsion career ladders (AFSCs 426X2/426X3 and 42699). As a result of October 1988 Rivet Workforce initiatives, the two career ladders have converted into one multishred career ladder (AFSC 454X0A/B, Aerospace Propulsion). At the time of this report, however, the major result of this initiative has been an AFSC number change. Since the data were collected prior to the conversion, the narrative and all tables will use the old classification numbers.

The study was initiated to update career ladder tasks, to assist in reclassification actions, and to update career ladder training documents. Additionally, the survey will identify what "engine monitoring system" and "engine management" tasks are being performed. The previous OSR was published in April 1982.

Background

AFSC 426X2 (Jet Engine) personnel functions include inspecting, removing, installing, assembling, disassembling, troubleshooting, repairing, servicing, testing, and modifying turbojet, turbofan, and modular turbofan aircraft engines; auxiliary power units (APU); small gas turbine engines; and other associated equipment. AFSC 426X3 (Turboprop) personnel perform many of the same functions on turboprop and turboshaft aircraft engines, propellers, APUs and other associated equipment.

Initial 3-skill level training for AFSC 426X2 personnel is provided at Chanute AFB in a 9-week, 3-day course. Students are instructed in jet engine operating principles, engine change, adjustments and conditioning of jet engines and systems, and other jet engine repair aspects. At the start of Block III, trainees split into two different avenues. One track teaches the F100 engine, while the other track instructs on the J57 engine. Regardless of the training platform utilized, both tracks cover the same materiel in the instruction Block. After completion, students often go into engine-specific training on engines such as J85, TF33, and F100-PW-220 at the tech school.

AFSC 426X3 initial 3-skill level training is also conducted at Chanute AFB in a 10-week, 2-day course. In addition to training on repair and maintenance of turboprop engines, propeller maintenance is instructed. Airmen assigned to helicopter units get follow-on training at the tech school on helicopter turboshafts.

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SURVEY METHODOLOGY

Survey Development

Data for this survey were collected using USAF Job Inventory AFPT 90-426-842, dated March 1988. After reviewing pertinent career ladder publications and tasks from previous survey instruments, the inventory developer prepared a preliminary task list. This task list was then refined and validated through personal interviews with 191 subject-matter experts at 17 operational bases and one training base to ensure a comprehensive sample of the various functions performed within the AFSC 426X3/X3 career ladders. The locations selected for visits and the reasons for their selection are listed below:

Chanute AFB IL--Technical Training Center for AFSC 426X2/3 basic course

England AFB LA--TF34 (A-10) engine maintenance

Barksdale AFB LA--CF6 (F-103) (KC-10A) and J57 (B-52G) engine maintenance

McConnell AFB KS--F108 (KC-135R) engine maintenance

Offutt AFB NE--CF6 (F-103) (E-4) and TF33 (EC-135) engine maintenance

Ellsworth AFB SD--F101 (B-1) engine maintenance

Minot AFB ND--TF33 (B-52H) and J57 (KC-135A) engine maintenance

Charleston AFB SC--TF33 (C141) engine maintenance

Dover AFB DE--TF39 (C-5) engine maintenance

Pease AFB NH--TF30 (FB-111) engine maintenance

Randolph AFB TX--J85 (T-38) and J69 (T-37) engine maintenance

Dyess AFB TX--T56 (C-130) engine maintenance

Kirtland AFB NM--T56 (C-130), T400 (HH-1N), T58 (HH-3E), and T64 (HH-53) engine maintenance

Nellis AFB NV--F100 (F-15,16) and J85 (T-38) engine maintenance

George AFB CA--J79 (F-4) and T76 (OV-10) engine maintenance

Mountain Home AFB ID--TF30 (F-111) engine maintenance

Beale AFB CA--J75 (U-2,TR-1) and J-58 (SR-71) engine maintenance

Travis AFB CA--TF39 (C-5) and TF33 (C-141) engine maintenance

The final job inventory consisted of 946 tasks, divided into 20 functional areas or duties. The inventory also contained a background section which includes questions on job title, mission, aircraft qualification, grade, and total active federal military service (TAFMS).

Survey Administration

From February through October 1988, survey control officers at Consolidated Base Personnel Offices worldwide distributed the inventory to AFSC 426X2, 426X3, and 42699 personnel. Participants were selected from a computer-generated mailing list provided by the Human Resources Laboratory.

To complete the survey, each incumbent first answered a series of background questions, then marked the tasks he or she performed. Finally, the incumbent rated each task performed according to the relative time spent performing that task. Ratings range from 1 (a very small amount of time spent) to 9 (a very large amount of time spent). As part of the computer analysis, all of an incumbent's ratings are combined and the total is assumed to represent 100 percent of the individual's time on the job. Each rating is then divided by this total and multiplied by 100 to give the relative percent time spent for each task. Using these figures, analysis compares tasks in terms of the relative percent time spent performing them.

Survey Sample

With over 10,000 AFSC 426X2 individuals eligible to receive a survey booklet, a random, stratified selection process was used to select career ladder members as survey participants and to ensure a proportional representation of major commands (MAJCOM) and military paygrades in the sample. Due to the smaller AFSCs 426X3 and 42699 career ladder sizes, all but those in training, hospital, or PCS status were selected to complete the job inventory. A total of 6,907 incumbents were randomly selected to complete the job inventory. This list of eligible personnel included an accurate representation across MAJCOMs. Table 1 reflects the distribution by MAJCOM and career ladder of personnel assigned to the career ladder as of April 1988, and of respondents in the survey sample. The 5,427 respondents in the final sample represent 79 percent of those receiving inventory booklets.

TABLE 1
COMMAND DISTRIBUTION OF SURVEY SAMPLE

COMMAND	AFSC 426X2		AFSC 426X3		AFSC 42699	
	PERCENT OF ASSIGNED	PERCENT OF SAMPLE	PERCENT OF ASSIGNED	PERCENT OF SAMPLE	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
AAC	1%	2%	*	0	1%	1%
USAFE	11%	11%	4%	6%	17%	14%
AFLC	1%	2%	*	*	2%	1%
AFSC	2%	2%	2%	2%	1%	2%
ATC	10%	9%	9%	6%	9%	9%
MAC	14%	17%	74%	75%	20%	24%
PACAF	6%	7%	3%	3%	3%	2%
SAC	20%	21%	0%	*	16%	17%
TAC	33%	30%	8%	8%	30%	29%
AFSC 426X2		AFSC 426X3		AFSC 42699		
Total Assigned	12,153		1,533		272	
Total Eligible Selected for Survey**	5,307		1,347		249	
Total in Sample	4,206		1,010		211	
Percent of Assigned in Sample	35%		66%		78%	
Percent of Eligible Selected in Sample	79%		75%		85%	

* Indicates less than 1 percent.

** Stratified random sample (excludes persons in PCS status, hospital, or less than 6 weeks on the job)

Task Factor Administration

In addition to collecting task performance data, part of the survey administration process involves collecting task factor ratings of task difficulty (TD) and training emphasis (TE). These ratings are collected from senior NCOs randomly selected to represent their career ladder and are processed separately from task performance data.

Task difficulty is defined as the length of time required for the average job incumbent to learn to do a task. To complete the TD booklet, each senior NCO rated inventory tasks with which they were familiar on a 9-point scale ranging from extremely low relative difficulty (a rating of 1) to extremely high relative difficulty (a rating of 9). Separate ratings were computed for each career ladder. The interrater reliability of the TD data provided by 88 AFSC 426X2 NCOs was acceptable, as was the interrater reliability provided by the 48 AFSC 426X3 NCOs. Each of these sets of TD ratings was adjusted to give a rating of 5.00 to a task of average difficulty, with a standard deviation of 1.00. Tasks rated 6.00 and above are considered high in task difficulty. The TD ratings provide a rank-ordered listing of the tasks in the inventory by degree of difficulty.

Training emphasis refers to the importance of structured training (through resident technical schools, field training detachments, formal OJT, etc.) of particular tasks for first-enlistment personnel. Individuals completing TE booklets rated tasks on a 10-point scale ranging from a blank (no training emphasis) to 9 (extremely heavy training required). The TE ratings provide a rank-ordered listing of tasks from high to low training emphasis. As was the case with TD ratings, separate ratings were computed for each shredout.

The interrater reliability for the 90 NCOs in the Jet Engine Propulsion career ladder was acceptable. The average TE rating was 1.72, with a standard deviation of 1.33. Tasks rated above 3.05 are considered high in training emphasis for AFSC 426X2 first-termers. The 37 AFSC 426X3 TE raters also had an acceptable interrater reliability, with an average TE rating of 1.59 and a standard deviation 1.37. Tasks above 2.96 are considered high in training emphasis for AFSC 426X3 first-enlistment personnel.

When used in conjunction with other information, such as percent members performing, TD and TE ratings can provide insight into training requirements. Such insight may help validate lengthening or shortening portions of instruction supporting AFSC-needed knowledges or skills.

SPECIALTY JOBS (Career Ladder Structure)

An important function of the USAF Occupational Analysis Program is examining a career ladder's structure. Based on incumbent responses to the survey, analysis identifies groups of incumbents spending similar amounts of time

performing similar tasks. Individuals performing many of the same tasks, and spending similar amounts of time on those tasks, group together to describe a job performed in the career ladder. In this way, analysis identifies the basic structure of the career ladder in terms of the jobs performed and their relationship to each other. This analysis provides a foundation for reviewing other aspects of the career ladder, such as personnel classification, AFR 39-1 Specialty Descriptions, and training considerations.

Specialty Structure Overview

The AFSC 426X2/X3 career ladders are diverse in the functional areas they encompass. Just three technical jobs encompass 59 percent of the sample. The remaining sample, however, is divided into 15 other smaller, more specialized jobs (not including the Supervisory Job). Airmen in both career ladders perform many of the same tasks. Each career ladder's basic duties revolve around the maintenance and repair of aircraft engines. Similarity between the two career ladders was thus great enough to warrant identifying jobs by functional area, as opposed to AFSC. Jobs will thus be listed as "Flightline Personnel," for example, as opposed to "Jet Engine Flightline Personnel" and "Turboprop Flightline Personnel." Primary differences between the two career ladders lie in engine-specific areas. For example, AFSC 426X2 personnel do not normally work on propellers, while few AFSC 426X3 personnel perform tasks dealing with afterburners. Variations existed within many of the jobs, often by engine type. Variations are defined as clearly identifiable functions within a job that are not different enough to be broken out into separate jobs. The three major jobs mentioned above are In-Shop, Flightline, and Test Cell Personnel. Many of the other identified jobs are smaller, more specialized areas, often functionally grouped in the career ladders under the shop or flightline areas. In the following discussion, the stage (STG) or group (GPO) number refers to computer-printed information. Figure 1 illustrates the jobs identified in this survey.

- I. CROSS UTILIZATION TRAINING (CUT) PERSONNEL (STG0289)
- II. IN-SHOP PERSONNEL (GPO0096)
- III. PHASE DOCK PERSONNEL (STG0231)
- IV. TEST CELL PERSONNEL (STG0354)
- V. FLIGHTLINE PERSONNEL (STG0283)
- VI. BALANCE SHOP PERSONNEL (STG0270)
- VII. AFTERBURNER/AUGMENTOR MODULE PERSONNEL (GPO0097)
- VIII. ACCESSORY REPAIR PERSONNEL (STG0055)
- IX. QUALITY ASSURANCE PERSONNEL (STG0264)

AFSC 426X2/X3 SPECIALTY JOBS

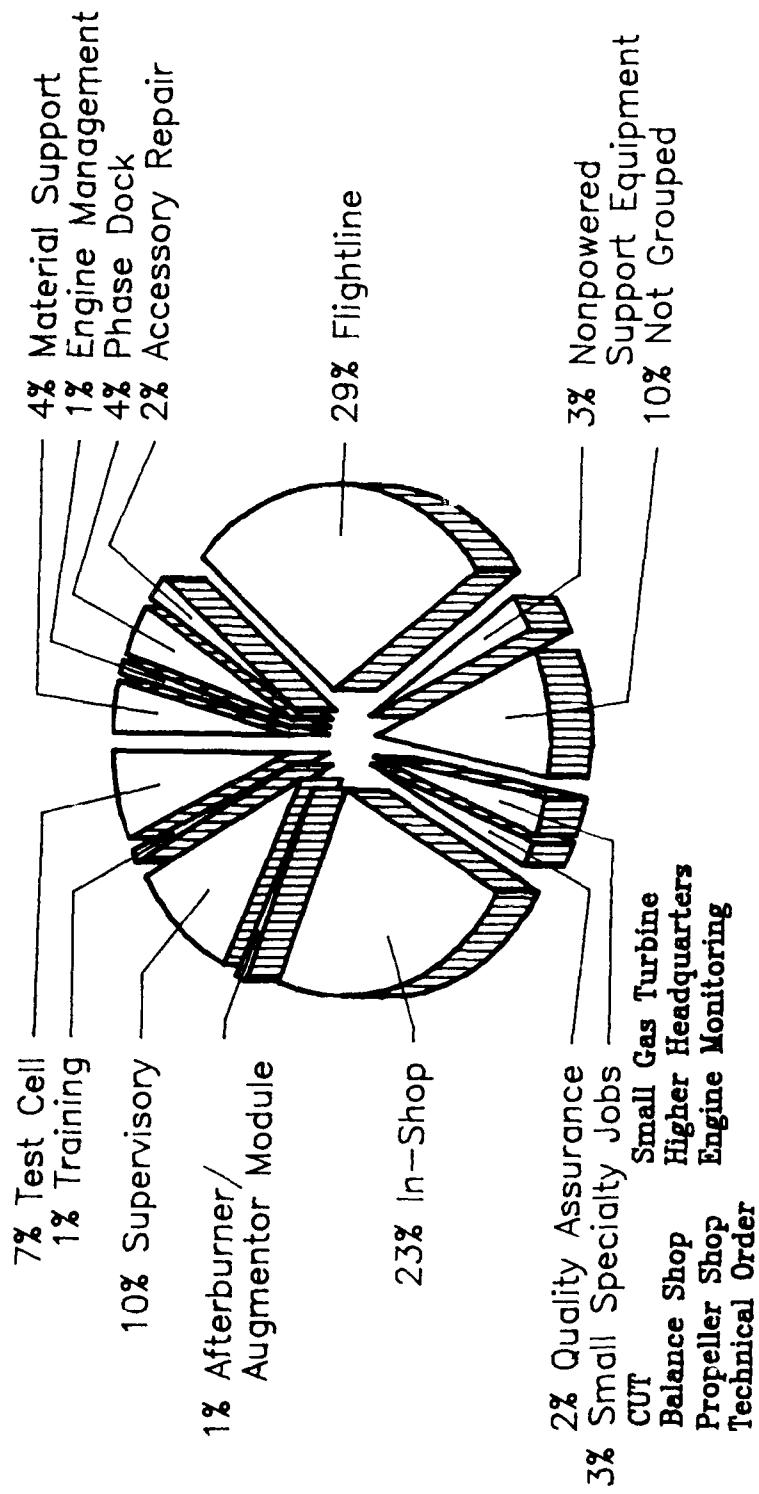


Figure 1

- X. SUPERVISORY PERSONNEL (STG0126)
- XI. TRAINING PERSONNEL (STG0037)
- XII. NONPOWERED SUPPORT EQUIPMENT PERSONNEL (STG0125)
- XIII. MATERIAL SUPPORT PERSONNEL (STG0110)
- XIV. PROPELLER SHOP PERSONNEL (STG1487)
- XV. SMALL GAS TURBINE PERSONNEL (STG0312)
- XVI. TECHNICAL ORDER PERSONNEL (STG0255)
- XVII. HIGHER HEADQUARTERS PERSONNEL (STG0267)
- XVIII. ENGINE MONITORING PERSONNEL (STG0067)
- XIX. ENGINE MANAGEMENT PERSONNEL (STG0095)
- XX. NOT GROUPED

Ninety percent of the survey respondents grouped into the above jobs. The remaining sample did not perform functions similar enough to group together or performed so few tasks in the inventory that their job could not be described.

Group Descriptions

The following paragraphs briefly describe the different jobs identified in the analysis. Table 2 provides selective background data on these jobs. For a more detailed listing of representative tasks and a summary of background data on these jobs, see Appendix A.

I. CROSS UTILIZATION TRAINING (CUT) PERSONNEL (STG0289). Personnel in this job perform tasks outside the normal engine maintenance duties. Instead of engine maintenance and repair, these individuals spend the majority of their total job time (58 percent) performing cross-utilization training tasks. These are tasks normally performed by personnel in other career ladders. Many AFSC 426X2/X3 personnel perform these tasks as part of an initiative to better utilize personnel and tasks on the flightline. This job averages a small number of tasks (28 tasks). Representative tasks include:

ground aircraft
position or remove aircraft chocks or pins
connect or disconnect external aircraft power

TABLE 2

SELECTED BACKGROUND DATA FOR SPECIALTY JOBS

	CROSS- UTILIZATION TRAINING (CUT) PERSONNEL	IN-SHOP PERSONNEL	PHASE DOCK PERSONNEL	TEST CELL PERSONNEL	FLIGHTLINE PERSONNEL
NUMBER IN GROUP PERCENT OF SAMPLE	10 * 10%	1,224 23% 105	243 4% 70	359 7% 142	1,569 29% 163
AVERAGE NUMBER OF TASKS	29				
MAJCOM (PERCENT) : **					
AAC	0%	2%	*	3%	*
USAFE	20%	10%	6%	16%	9%
AFLC	10%	3%	2%	0%	*
AFSC	*	3%	*	2%	2%
ATC	0%	10%	*	7%	6%
MAC	40%	20%	19%	12%	38%
PACAF	10%	7%	3%	10%	4%
SAC	0%	17%	37%	14%	16%
TAC	20%	27%	32%	37%	23%
DAFSC (PERCENT) :					
42632	20%	14%	12%	3%	3%
42652	30%	61%	65%	53%	38%
42672	0%	16%	20%	34%	24%
42633	0%	1%	0%	0%	2%
42653	40%	5%	2%	6%	19%
42673	10%	2%	0%	3%	14%
42699	0%	0%	0%	1%	*
AVERAGE TICF (MOS)	75	54	57	83	81
AVERAGE TAFMS (MOS)	77	62	63	90	90
PERCENT FIRST ENLISTMENT	30%	54%	54%	25%	28%

* Less than 1 percent

** Only predominant MAJCOMs displayed

TABLE 2 (CONTINUED)

SELECTED BACKGROUND DATA FOR SPECIALTY JOBS

	<u>BALANCE SHOP PERSONNEL</u>	<u>AFTERBURNER/ AUGMENTOR MODULE PERSONNEL</u>	<u>ACCESSORY REPAIR PERSONNEL</u>	<u>QUALITY ASSURANCE PERSONNEL</u>	<u>SUPERVISORY PERSONNEL</u>	<u>TRAINING PERSONNEL</u>
NUMBER IN GROUP	19	67	102	126	533	80
PERCENT OF SAMPLE	*	1%	2%	2%	10%	1%
AVERAGE NUMBER OF TASKS	61	45	37	69	31	28
MAJCOM (PERCENT): **						
AAC	0%	6%	0%	2%	*	1%
USAFE	11%	12%	3%	8%	11%	6%
AFLC	0%	0%	0%	2%	2%	0%
AFSC	0%	1%	*	2%	2%	1%
ATC	74%	9%	13%	6%	10%	51%
MAC	0%	1%	54%	23%	29%	19%
PACAF	5%	15%	*	8%	7%	5%
SAC	0%	0%	24%	23%	12%	1%
TAC	11%	55%	5%	26%	27%	15%
DAFSC (PERCENT):						
42632	42%	16%	13%	0%	0%	3%
42652	42%	76%	64%	8%	10%	29%
42672	16%	6%	8%	70%	53%	48%
42633	0%	0%	3%	0%	0%	0%
42653	0%	1%	11%	0%	*	8%
42673	0%	0%	2%	17%	10%	13%
42699	0%	0%	0%	6%	27%	1%
AVERAGE TICF (MOS)	45	34	43	156	176	125
AVERAGE TAFMS (MOS)	49	41	51	165	191	132
PERCENT FIRST ENLISTMENT	58%	70%	68%	0%	2%	1%

* Less than 1 percent
 ** Only predominant MAJCOMs displayed

TABLE 2 (CONTINUED)

SELECTED BACKGROUND DATA FOR SPECIALTY JOBS

	<u>NONPOWERED SUPPORT EQUIPMENT PERSONNEL</u>	<u>MATERIAL SUPPORT PERSONNEL</u>	<u>PROPELLER SHOP PERSONNEL</u>	<u>SMALL GAS TURBINE PERSONNEL</u>	<u>TECHNICAL ORDER PERSONNEL</u>
NUMBER IN GROUP	141	233	40	16	18
PERCENT OF SAMPLE	3%	4%	*	*	*
AVERAGE NUMBER OF TASKS	54	40	133	44	12
MAJCOM (PERCENT):**					
AAC	1%	3%	0%	0%	0%
USAFE	14%	12%	8%	13%	22%
AFLC	0%	*	0%	0%	0%
AFSC	1%	2%	0%	0%	0%
ATC	2%	4%	5%	0%	0%
MAC	21%	25%	85%	38%	17%
PACAF	6%	6%	0%	0%	6%
SAC	33%	19%	0%	0%	39%
TAC	21%	28%	0%	50%	17%
DAFSC (PERCENT):					
42632	6%	5%	0%	13%	C%
42652	58%	50%	0%	69%	39%
42672	24%	30%	0%	19%	50%
42633	1%	*	5%	0%	0%
42653	8%	8%	63%	0%	11%
42673	2%	5%	33%	0%	0%
42699	0%	*	0%	0%	0%
AVERAGE TICF (MOS)	71	85	80	52	106
AVERAGE TAFMS (MOS)	79	98	88	55	119
PERCENT FIRST ENLISTMENT	43%	33%	33%	50%	11%

* Less than 1 percent

** Only predominant MAJCOMs displayed

TABLE 2 (CONTINUED)

SELECTED BACKGROUND DATA FOR SPECIALTY JOBS

	HIGHER HEADQUARTERS PERSONNEL	ENGINE MONITORING PERSONNEL	ENGINE MANAGEMENT PERSONNEL
NUMBER IN GROUP	24	26	59
PERCENT OF SAMPLE	*	*	1%
AVERAGE NUMBER OF TASKS	18	32	61
MAJCOM (PERCENT):**			
AAC	4%	0%	0%
USAFE	4%	4%	31%
AFLC	4%	0%	0%
AFSC	13%	0%	3%
ATC	8%	0%	3%
MAC	29%	31%	24%
PACAF	8%	0%	7%
SAC	8%	58%	7%
TAC	13%	8%	24%
DAFSC (PERCENT):			
42632	0%	0%	0%
42652	0%	50%	31%
42672	29%	50%	51%
42633	0%	0%	0%
42653	0%	0%	2%
42673	13%	0%	8%
42699	58%	0%	8%
AVERAGE TICF (MOS)	217	102	134
AVERAGE TAFMS (MOS)	226	109	142
PERCENT FIRST ENLISTMENT	0%	8%	12%

* Less than 1 percent
 ** Only predominant MAJCOMs displayed

walk wings or tails during aircraft towing operations
launch or recover aircraft
tow aircraft, other than to and from trim pads

These personnel average over 6 years TAFMS. The job was equally divided between AFSCs 426X2 and 426X3 mechanics, with most being qualified at the 5-skill level.

II. IN-SHOP PERSONNEL (GPO0096). The airmen working in this large job perform buildup and teardown servicing of engines that have been removed from the aircraft and taken to the engine shop. Most of the intensive engine repair work is done in this job. As such, the majority of In-Shop Personnel tasks involve performing general aircraft and in-shop engine maintenance tasks (82 percent of total job time). Several of these tasks involve removing and installing aircraft engine components. This group performs an average of 105 tasks. Representative tasks include:

seal, plug, or cap lines or openings
remove or install engine plumbing
remove or install engine fuel system components
remove or install engine fuel manifolds or nozzles
remove or install engine bearings
inspect engine plumbing

A number of variations were uncovered in this job. Most revolved around engine type. Examples of some of these engine job variations include the different F-100 series, J-57, J-69, T-56, and TF-39. Other noted job variations include Small Gas Turbine Personnel and Field Training Detachment (FTD) Personnel. FTD Personnel are grouped in this job due to the engine repair tasks they perform as part of their training function.

These personnel average over 5 years TAFMS. Sixty-one percent of this group were DAFSC 42652 personnel. Eight percent of the job was made up of AFSC 426X3 personnel.

III. PHASE DOCK PERSONNEL (STG0231). This job is normally an aspect of flightline responsibilities. Phase Dock Personnel perform periodic inspections on aircraft engines and some servicing and maintenance on those engines. They perform an average of 70 tasks, some of which include:

inspect engine oil filters
inspect engine plumbing
perform engine leak checks
inspect fuel filters

seal, plug, or cap lines or openings
service engine oil systems
remove or install engine plumbing

Personnel in this job average just over 5 years TAFMS. Ninety-eight percent were AFSC 426X2, and 65 percent were 5-skill level qualified in this career ladder.

IV. TEST CELL PERSONNEL (STG0354). Airmen in this job test engines that have been repaired to ascertain the quality of repair and check engine performance. They also perform some minor maintenance, make required adjustments to engines, and record data necessary to determine engine condition. Seventeen percent of their total job time is spent performing test cell tasks. These individuals perform a large job averaging 142 tasks. Examples include:

remove or install engines in test stands
perform engine leak checks
service engines in test cells
connect or disconnect test equipment to engines
inspect engines before and after installation in test cells
analyze engine operation data during test cell runs
service engine oil systems

A little over 7 years is the average TAFMS for personnel in this job. Fifty-three percent are 5-skill level qualified in the AFSC 426X2 career ladder, while 34 percent hold a AFSC 42672 skill level. The Turboprop career ladder made up 9 percent of the job.

V. FLIGHTLINE PERSONNEL (STG0283). Personnel in this largest sample job perform engine maintenance and repair on aircraft on the flightline. Performing general aircraft and flightline engine maintenance tasks account for 64 percent of their total job time. Personnel in this job perform a very large job averaging 155 tasks. Some representative tasks include:

perform engine leak checks
seal, plug, or cap lines or openings
remove or install engine fuel system components
inspect engine plumbing
remove or install engine oil system components
service engine oil systems
inspect engine oil filters

This job contains individuals averaging just over 7 years TAFMS. Sixty-five percent of the personnel in this job are AFSC 426X2 personnel. AFSC 426X3 individuals constitute the remaining 35 percent. As a result of Rivet Workforce, Tactical Air Force (TAF) flightline incumbents have been converted

to AFSC 452X4, Tactical Aircraft Maintenance. This supports their "crew chief" maintenance operations. Personnel in the propulsion specialty affected by this conversion will retain AFSC 454X0 as a secondary AFSC.

VI. BALANCE SHOP PERSONNEL (STG0270). Often included in the shop area, personnel in this job are primarily responsible for performing rotating engine assembly weight and balance functions. This duty accounts for 23 percent of their total job time. They perform an average of 61 tasks. Some representative tasks include:

- blend engine compressor blades
- inspect engine compressors
- remove or install compressor blades
- perform permanent balance corrections on compressor rotors
- measure stator vane tip radii
- dynamically balance compressors

Balance Shop job members are among the most junior individuals, averaging 4 years TAFMS. All are AFSC 426X2 personnel, with 3- and 5-skill level individuals each making up 42 percent of the job. ATC is the major utilizing command, comprising 74 percent of the job.

VII. AFTERBURNER/AUGMENTOR MODULE PERSONNEL (GPO0097). This job includes personnel working on either conventional or module engines. These individuals work on the afterburners or augmentors module sections of aircraft engines. Performing general and in-shop aircraft engine maintenance accounts for 71 percent of their total job time. These career ladder members perform an average of 45 tasks. Representative tasks include:

- inspect afterburners or augmentors
- repair afterburners or augmentors
- assemble or disassemble afterburners or augmentors
- remove or install afterburner or augmentor system components
- adjust afterburner or augmentor nozzle areas
- rig afterburner or augmentor systems

Primarily junior people group into this job, averaging just under 3 1/2 years TAFMS. The majority of personnel in this job (99 percent) are AFSC 426X2 personnel, with 76 percent being qualified as DAFSC 42652 personnel. Eighty-eight percent are utilized by TAF forces (TAC, PACAF, USAFE, and AAC).

VIII. ACCESSORY REPAIR PERSONNEL (STG0055). These job incumbents primarily work on engine accessory systems, such as fuel nozzles, fuel manifolds, and gearboxes. The accessories maintained often depend on the type of engine

utilized. For example, individuals maintaining TF33 engines work on thrust reverser systems, but this would not be the case if they maintained J85 engines. Accessory Repair Personnel perform a very limited job averaging only 37 tasks. Representative tasks include:

- inspect accessory gearboxes
- repair engine gearboxes
- perform operational checks of fuel manifolds
- inspect engine fuel manifolds
- remove or install engine reduction gearbox assembly components
- remove or install thrust reverser assembly components

Variations in accessories maintained revolved around different engine types. These variations included T56, J85, J57, and TF33 engines. Personnel in this job have an average TAFMS of 4 years. Sixty-four percent belong to the DAFSC 42652 specialty, while 16 percent are AFSC 426X3 career ladder members. Fifty-four percent are utilized by MAC.

IX. QUALITY ASSURANCE PERSONNEL (STG0264). These job members have responsibility for determining aircraft and equipment condition and personnel proficiency. Performing these quality assurance tasks accounts for 25 percent of their total job time. Their tasks are highlighted by many inspecting and evaluating tasks. They perform an average of 69 tasks, including:

- perform quality visual inspections of engines
- inspect flightline maintenance actions
- inspect in-shop maintenance actions
- inspect engines or associated equipment for corrosion
- review Technical Order (TO) changes
- perform activity inspections

As could be expected, personnel in this job are more senior than most, averaging almost 14 years TAFMS. Sixty-four percent are DAFSC 42672 personnel and 17 percent are 7-skill level qualified in the AFSC 426X3 career ladder.

X. SUPERVISORY PERSONNEL (STG0126). These are the NCOICs and supervisors of the two career ladders whose major duties are supervisory and administrative in nature. Sixty-three percent of their total job time is spent performing these supervisory and administrative functions. Personnel holding this job perform an average of 81 tasks. Representative tasks include:

- write APRs
- determine work priorities
- inspect personnel for compliance with military standards

assign maintenance and repair work
counsel subordinates on personal or military-related
matters
plan or schedule work assignments

Not surprisingly, this job included some of the most senior people in the sample, averaging almost 16 years TAFMS. DAFSC 42672 and 42673 made up 54 percent and 10 percent of this job, respectively. Twenty-seven percent were DAFSC 42699 qualified individuals.

XI. TRAINING PERSONNEL (STG0037). Members of this job include the trainers of the AFSC 426X2/X3 career ladders. They include Field Training Detachment personnel, Unit Training personnel, and Technical School Instructors. Training tasks account for 48 percent of their total job time. Individuals in this job perform an average of 28 tasks. Representative tasks include:

administer tests
conduct resident course classroom training
score tests
annotate training records
counsel trainees on training progress
evaluate progress of trainees

Another rather senior job, these incumbents have an average TAFMS of 11 years. Forty-eight percent are DAFSC 42672 personnel, while 29 percent hold a 5-skill level qualification in that career ladder. Thirteen percent belong to the DAFSC 42673 specialty. As could be expected, most (51 percent) are utilized by ATC.

XII. NONPOWERED SUPPORT EQUIPMENT PERSONNEL (STG0125). Airmen in this job are responsible for maintaining nonpowered engine support equipment. Examples of these include forklifts, hoists, carts, and engine removal, installation, and transportation equipment. Maintaining these types of equipment accounts for 37 percent of their total job time. Personnel perform a job averaging 54 tasks, some of which include:

paint and mark nonpowered engine support equipment
perform periodic inspections of general support equipment
clean engine trailers or stands
inspect and service engine trailer tires
maintain inspection status of nonpowered support equipment

Many shops have their personnel working in more than one section. In this job, for example, many individuals work in other sections such as accessory repair and small gas turbine engines. These job incumbents average almost 7 years TAFMS. Fifty-eight percent are 5-skill level qualified airmen in the AFSC 426X2 career ladder. Eleven percent of the job is composed of AFSC 426X3 personnel.

XIII. MATERIAL SUPPORT PERSONNEL (STG0110). These personnel are responsible for coordinating with Supply for needed parts and equipment. Many maintain tool cribs and bench stock listings. Performing general administrative and supply tasks accounts for 71 percent of their total job time. The average number of tasks performed in this job is only 40, some of which include:

- issue special tools
- inventory special tools, such as consolidated tool kits and tool room chits
- maintain tool cribs
- perform shift security checks of tool crib
- maintain bench stock listings
- process due in from maintenance items

Job incumbents have an average TAFMS of 8 years. Fifty percent are 5-skill level qualified in the AFSC 426X2 career ladder. AFSC 426X3 personnel represent 13 percent of this job.

XIV. PROPELLER SHOP PERSONNEL (STG1487). Members of this job repair and maintain propellers. Performing maintenance tasks on propellers accounts for 43 percent of their total job time. These individuals perform a very broad job averaging 133 tasks. Representative tasks include:

- inspect propellers or related components
- remove or install pump housings
- remove or install propeller control assemblies
- rework propeller blade nicks, burrs, or scratches
- remove or install propeller brush block assemblies
- spray paint propeller tips or blade data sections

Only AFSC 426X3 personnel hold this job. They have an average TAFMS of 7 years. Sixty-three percent are 5-skill level qualified. The vast majority of Propeller Shop Personnel (85 percent) are utilized by MAC.

XV. SMALL GAS TURBINE PERSONNEL (STG0312). Personnel in this job concentrate on maintaining small gas turbine (SGT) engines. Performing this duty accounts for 48 percent of their total job time. Due to their concentration in this area, individuals in this job perform an narrow job of only 44 tasks. These include:

- remove or install SGT engine components
- assemble or disassemble SGT engines
- inspect SGT engine components
- operate SGT engines on test stands
- analyze SGT engine operation data during test stand runs
- adjust SGT engine components

Members in this job average over 4 1/2 years TAFMS. Only AFSC 426X2 personnel were found within this job, with 69 percent being 5-skill level qualified. Half the members of this job are utilized by TAC.

XVI. TECHNICAL ORDER PERSONNEL (STG0255). Individuals in this job are responsible for maintaining TO files. Due to the specificity of the job, job members perform a very narrow job averaging only 12 tasks. Their job is so specified, in fact, that the five representative tasks listed below account for over 50 percent of their total job time:

- maintain TO publication files
- direct maintenance of TO files
- review TO changes
- initiate or review TO system forms, such as AFTO Forms 22, 27, 110, 110A, 110B, and 131
- verify receipt of TCTO changes

The average TAFMS of these job members is 10 years. Fifty percent belong to the DAFSC 42672 specialty. All AFSC 426X3 members (11 percent) are qualified at the 5-skill level.

XVII. HIGHER HEADQUARTERS PERSONNEL (STG0267). Many in this senior job are assigned at the headquarters level in nonsupervisory staff level coordination and evaluation functions. Inspecting and evaluating tasks account for 52 percent of their total job time. These individuals perform an average of 18 tasks. Representative tasks include:

- evaluate suggestions
- write staff studies, surveys, or special reports, other than training reports

evaluate Technical Order improvement reports
identify problem areas using deficiency or service reports
evaluate inspection report findings

The most senior job in the sample, these incumbents average almost 19 years TAFMS. Both career ladders are represented in this job (29 percent DAFSC 42672 and 13 percent DAFSC 42673). Fifty-eight percent, however, hold DAFSC 42699.

XVIII. ENGINE MONITORING PERSONNEL (STG0067). These job incumbents monitor the performance of engines while in flight. In other words, they analyze data on engine performance after the aircraft has flown to ensure the engine has performed up to standards. Performing these engine monitoring tasks account for 45 percent of their total job time. They perform an average of 32 tasks, some of which include:

analyze engine performance
update automated engine performance or maintenance data
coordinate joint oil analysis program (JOAP) records with appropriate agencies
report maintenance or diagnostic check requirements to flightline personnel for resolution
review JOAP records
manually record engine performance or maintenance data

The average TAFMS of these job members is 9 years. Half are DAFSC 42672 personnel, while the other 50 percent are DAFSC 42652 specialty members. Fifty-eight percent are utilized by SAC.

XIX. ENGINE MANAGEMENT PERSONNEL (STG0120). Engine Management Personnel control and account for the movement of engines and their status. Performing these engine management tasks account for 46 percent of their total job time. They perform an average of 61 tasks. Representative tasks include:

maintain manual AFTO Forms 95
update automated engine removal or installation data
coordinate engine changes with appropriate agencies
track repair of engines or engine modules
verify documentation of repaired engines or engine modules
prepare engine records for transfer

Another group of senior personnel, the average TAFMS for job incumbents is 12 years. Fifty-one percent are qualified at the 7-skill level in the AFSC 426X2 career ladder. AFSC 426X3 makes up 10 percent of the job, with 8 percent being DAFSC 42673 qualified.

Comparison of Specialty Jobs

As is readily evident from the above discussion, the propulsion specialty contains a number of different jobs covering a wide variety of tasks. Several tasks, nevertheless, were commonly performed by personnel in both the Jet Engine and Turboprop specialties. Because of this task commonality, jobs within the propulsion specialty were identified by functional area, rather than by AFSC. Within many of these functional areas, however, personnel in each of the career ladders clearly separated by AFSC into their own distinct variations. The consolidation of the two propulsion specialties into these overall jobs should, therefore, not be viewed as a call to merge the two specialties, since the two ladders distinctly separated by specialty and would presumably separate by shreds.

The three major technical jobs identified in the career ladder were the In-Shop, Flightline, and Test Cell Personnel jobs. Most of the other jobs were small, specialized shops often located within shop or flightline functional areas. Examples of specialized jobs often functionally located within the shop area include: Balance Shop, Afterburner/Augmentor Module, Accessory Repair, Nonpowered Support Equipment, and SGT. Phase Dock Personnel, on the other hand, are usually functionally located under the flightline area.

The majority of variations identified within the specialty jobs (especially in the In-Shop and Flightline Personnel jobs) centered around engines. Individuals in these variations were found performing tasks particular to specific engine types.

Comparison to Previous Survey

The results of this survey were compared to the results of the last AFSC 426X2/X3 survey, AFPT 90-426-424, dated April 1982. Overall, the previous survey reported findings similar to those stated in the present job structure analysis. Both identified the three major technical jobs plus several other more specialized jobs. The last survey, however, separated these jobs by career ladder. For instance, the 1982 survey featured a job of "Flightline Turboprop Engine Maintenance Personnel" and another job of "Flightline Jet Engine Maintenance Personnel," as opposed to just "Flightline Personnel."

The past survey also identified several jobs by different names. The most notable is "Aircraft Servicing Personnel," which in the present survey are called "Cross Utilization and Training (CUT) Personnel." One previously listed job, not identified in the present survey, was "QEC Kit Monitors." "Engine Monitoring Personnel," on the other hand, was not identified in the previous survey. Further, "Phase Dock Personnel" and "Nonpowered Support Equipment Personnel" are two jobs formerly identified as variations under larger jobs. A final finding deals with the "Small Gas Turbine Personnel" job. The 1982 OSR had both AFSC 426X2 and 426X3 personnel within its SGT job, while the present study identified only AFSC 426X2 airmen in the job. Pockets of AFSC 426X3 personnel performing these tasks were, nevertheless, found in

the sample, but did not group in the present "Small Gas Turbine Personnel" job. A complete listing comparing the present and previously identified jobs is included in Table 3.

ANALYSIS OF 426X2/426X3 DAFSC GROUPS

In addition to analyzing the career ladder structure, examining skill levels is helpful in understanding a career ladder. The DAFSC analysis compares skill levels, highlighting differences in the tasks performed at the different levels. This information can be useful in examining how well various career ladder documents, such as AFR 39-1 Specialty Descriptions and the Specialty Training Standards (STS), reflect what career ladder personnel are actually doing in the field.

A. AFSC 426X2 DAFSC Analysis: Three and 5-skill level personnel were combined for purposes of this analysis. Both skill levels essentially perform the same functions, though some increase does occur in supervisory duties at the 5-skill level. DAFSC 42672 personnel perform a job encompassing many of the tasks done at the more junior skill levels in addition to the supervisory responsibilities that enter into their job descriptions. The distribution of skill-level members across each job is shown in Table 4. To give a sense of the progression through the skill levels, relative time spent in each duty by skill level is presented in Table 5.

The 2,720 airmen with a DAFAC of 42632 or 42652 comprise 65 percent of the total AFSC 426X2 sample. They perform a very technical job primarily dealing with performing general aircraft engine maintenance tasks (which comprise 56 percent of their total job time). A number of their tasks involve removing or installing and inspecting various engine components (see Table 6). The majority of 3- and 5-skill level personnel work in the In-shop or Flightline jobs.

The DAFSC 42672 group consisted of 1,486 individuals, accounting for 35 percent of the total AFSC 426X2 sample. Supervisory and administrative areas are the most commonly performed tasks of these career ladder members. They, however, still spend the majority of their total job time in technical duties. Only 32 percent is spent in traditional supervisory duties. Many of their top technical tasks involve inspecting engine components. They thus perform many of the technical tasks accomplished by 3- and 5-skill personnel, in addition to the supervisory tasks in their job description. Jobs employing the most 7-skill level qualified individuals include Flightline, Supervisory, and In-shop. A number of their representative tasks are presented in Table 7.

B. AFSC 426X3 DAFSC Analysis: A great many similarities exist between the AFSC 426X3 and 426X2 DAFSC analyses. As with the AFSC 42632/52 DAFSC analysis, the AFSC 426X3 3- and 5-skill level analysis will be combined. Not a great deal of difference was noted in either of their singular responsibilities. DAFSC 42673 personnel, like their DAFSC 42672 counterparts,

TABLE 3

JOB SPECIALTY COMPARISONS BETWEEN CURRENT AND 1982 SURVEY

CURRENT SURVEY	1982 SURVEY
CROSS UTILIZING TRAINING (CUT) PERSONNEL	AIRCRAFT SERVICING PERSONNEL
IN-SHOP PERSONNEL	IN-SHOP ENGINE MAINTENANCE PERSONNEL CLUSTER <ul style="list-style-type: none"> a. Engine Build-up or Tear Down Specialists b. Turboprop Quick Engine Change Kit Specialists c. Small Gas Turbine Repair and Testing Specialists d. Jet QEC Kit Specialists
FLIGHTLINE PERSONNEL	FLIGHTLINE TURBOPROP ENGINE MAINTENANCE CLUSTER <ul style="list-style-type: none"> a. Flightline Engine and Propeller Maintenance Specialists b. Flightline Propeller Maintenance Specialists
PHASE DOCK PERSONNEL	FLIGHTLINE JET ENGINE MAINTENANCE PERSONNEL CLUSTER <ul style="list-style-type: none"> a. Flightline Jet Engine Maintenance Specialists b. Trim Pad Specialists
TEST CELL PERSONNEL	Jet Phase Dock Specialists* Turboprop Phase Dock Specialists*
BALANCE SHOP PERSONNEL	TEST CELL PERSONNEL
AFTERTURNER/AUGMENTOR MODULE PERSONNEL	BALANCE SHOP SPECIALISTS
ACCESSORY REPAIR PERSONNEL	AFTERTURNER MECHANICS
	ENGINE ACCESSORY REPAIRMEN

* Each Phase Dock Job Originally Listed Under Flightline Clusters

TABLE 3 (CONTINUED)

JOB SPECIALTY COMPARISONS BETWEEN CURRENT AND 1982 SURVEY

CURRENT SURVEY	1982 SURVEY
SMALL GAS TURBINE PERSONNEL	SMALL GAS TURBINE MECHANICS
PROPELLER SHOP PERSONNEL	PROPELLER SHOP MAINTENANCE PERSONNEL
NONPOWERED SUPPORT EQUIPMENT PERSONNEL	SUPPLY SUPPORT PERSONNEL CLUSTER <ul style="list-style-type: none"> a. Materiel-Aerospace Ground Equipment (AGE) Support Personnel b. Tool Crib Personnel
MATERIAL SUPPORT PERSONNEL	TECHNICAL ORDER (TO) MONITORS
TECHNICAL ORDER PERSONNEL	ENGINE RECORDS MAINTENANCE PERSONNEL
ENGINE MANAGEMENT PERSONNEL	NOT IDENTIFIED
ENGINE MONITORING PERSONNEL	FORMAL TRAINING PERSONNEL
TRAINING PERSONNEL	QUALITY CONTROL TECHNICIANS
QUALITY ASSURANCE PERSONNEL	QEC KIT MONITORS
NOT IDENTIFIED	HEADQUARTERS STAFF PERSONNEL
HIGHER HEADQUARTERS PERSONNEL	PROPELLION BRANCH MANAGEMENT PERSONNEL CLUSTER <ul style="list-style-type: none"> a. General Supervisory Personnel b. OJT Program Monitors
SUPERVISORY PERSONNEL	

* Each Phase Dock Job Originally Listed Under Flightline Clusters

TABLE 4

DISTRIBUTION OF AFSCs 426X2/X3 AND 42699 SKILL-LEVEL MEMBERS ACROSS CAREER
LADDER JOBS
(PERCENT RESPONDING)

<u>JOB GROUPS</u>	DAFSC 42632/52 (N=2,720)	DAFSC 42672 (N=1,486)	DAFSC 42633/53 (N=585)	DAFSC 42673 (N=425)	DAFSC 42699 (N=211)
I. CROSS UTILIZATION TRAINING (CUT) PERSONNEL (N=10)	*	0%	*	*	0%
II. IN-SHOP PERSONNEL (N=1,224)	34%	13%	14%	7%	0%
III. PHASE DOCK PERSONNEL (N=243)	7%	3%	1%	0%	0%
IV. TEST CELL PERSONNEL (N=359)	7%	8%	3%	3%	2%
V. FLIGHTLINE PERSONNEL (N=1,569)	24%	26%	55%	52%	2%
VI. BALANCE SHOP PERSONNEL (N=19)	*	*	0%	0%	0%
VII. AFTERBURNER/AUGMENTOR MODULE PERSONNEL (N=67)	2%	*	*	0%	0%
VIII. ACCESSORY REPAIR PERSONNEL (N=102)	3%	*	2%	*	0%
IX. QUALITY ASSURANCE PERSONNEL (N=126)	*	6%	0%	5%	3%
X. SUPERVISORY PERSONNEL (N=533)	2%	19%	*	13%	68%
XI. TRAINING PERSONNEL (N=80)	*	3%	1%	2%	*

* Less than 1 percent

TABLE 4 (CONTINUED)

DISTRIBUTION OF AFSCS 426X2/X3 AND 42699 SKILL-LEVEL MEMBERS ACROSS CAREER
LADDER JOBS
(PERCENT RESPONDING)

<u>JOB GROUPS</u>	DAFSC 42632/52 (N=2,720)	DAFSC 42672 (N=1,486)	DAFSC 42633/53 (N=585)	DAFSC 42673 (N=425)	DAFSC 42699 (N=211)
XII. NONPOWERED SUPPORT EQUIPMENT PERSONNEL (N=141)	3%	2%	2%	*	0%
XIII. MATERIAL SUPPORT PERSONNEL (N=233)	5%	5%	4%	3%	*
XIV. PROPELLER SHOP PERSONNEL (N=40)	0%	0%	5%	3%	0%
XV. SMALL GAS TURBINE PERSONNEL (N=16)	*	*	0%	0%	0%
XVI. TECHNICAL ORDER PERSONNEL (N=18)	*	*	*	0%	0%
XVII. HIGHER HEADQUARTERS PERSONNEL (N=24)	0%	*	0%	*	7%
XVIII. ENGINE MONITORING PERSONNEL (N=26)	*	*	0%	0%	0%
XIX. ENGINE MANAGEMENT PERSONNEL (N=59)	*	2%	*	1%	2%
XX. NOT GROUPED (N=538)	9%	10%	12%	9%	14%

* Less than 1 percent

TABLE 5

RELATIVE TIME SPENT ON DUTIES BY DAFSC 426X2 SKILL-LEVEL MEMBERS

DUTIES	DAFSC 42632/52 (N=2,720)	DAFSC 42672 (N=1,486)
A. ORGANIZING AND PLANNING	2	8
B. DIRECTING AND IMPLEMENTING	2	8
C. INSPECTING AND EVALUATING	2	8
D. TRAINING	2	7
E. PERFORMING GENERAL ADMINISTRATIVE AND SUPPLY TASKS	12	14
F. PERFORMING QUALITY ASSURANCE TASKS	3	5
G. PERFORMING GENERAL AIRCRAFT ENGINE MAINTENANCE TASKS	56	35
H. PERFORMING GENERAL PROPELLER MAINTENANCE TASKS	*	*
I. PERFORMING FLIGHTLINE MAINTENANCE ON AIRCRAFT ENGINES	3	3
J. PERFORMING FLIGHTLINE MAINTENANCE ON PROPELLERS	*	*
K. PERFORMING IN-SHOP MAINTENANCE ON AIRCRAFT ENGINES	8	3
L. PERFORMING IN-SHOP MAINTENANCE ON PROPELLERS	*	*
M. PERFORMING ROTATING ENGINE ASSEMBLY WEIGHT AND BALANCE FUNCTIONS	*	*
N. PERFORMING TEST CELL TASKS	2	2
O. MAINTAINING AUXILIARY POWER UNITS (APU)	*	*
P. MAINTAINING SMALL GAS TURBINE (SGT) ENGINES	*	*
Q. PERFORMING ENGINE MONITORING SYSTEM TASKS	*	*
R. PERFORMING ENGINE MANAGEMENT TASKS	*	2
S. MAINTAINING NONPOWERED ENGINE SUPPORT EQUIPMENT	2	1
T. PERFORMING CROSS UTILIZATION TRAINING (CUT) TASKS	2	2

* Less than 1 percent

TABLE 6
REPRESENTATIVE TASKS PERFORMED BY DAFSC 42632/52 PERSONNEL

<u>TASKS</u>	<u>PERCENT PERFORMING (N=2,720)</u>
E159 COMPLETE AFTO FORMS 350 (REPAIRABLE ITEM PROCESSING TAG)	70
G406 REMOVE OR INSTALL ENGINE PLUMBING	70
G400 REMOVE OR INSTALL ENGINE FUEL SYSTEM COMPONENTS	69
G464 SEAL, PLUG, OR CAP LINES OR OPENINGS	69
G404 REMOVE OR INSTALL ENGINE OIL SYSTEM COMPONENTS	68
G276 INSPECT ENGINE OIL FILTERS	64
G278 INSPECT ENGINE PLUMBING	64
G373 PLACE PROTECTIVE COVERS ON ENGINES	64
E158 COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	62
F230 INSPECT AREAS FOR FOREIGN OBJECT DAMAGE (FOD) ITEMS	59
G273 INSPECT ENGINE EXHAUST SECTION COMPONENTS	57
G283 INSPECT FUEL FILTERS	56
G426 REMOVE OR INSTALL OIL COOLER ASSEMBLIES	54
G270 INSPECT ENGINE COMPRESSORS	53
G391 REMOVE OR INSTALL ENGINE ANTI-ICING SYSTEM COMPONENTS	53
G419 REMOVE OR INSTALL IGNITION SYSTEM COMPONENTS	53
G279 INSPECT ENGINE STATOR VANES	52
G280 INSPECT ENGINE TRAILERS OR STANDS	52
G397 REMOVE OR INSTALL ENGINE EXHAUST SECTION COMPONENTS	51
G262 DRAIN FUEL FILTERS	49
G282 INSPECT ENGINES BEFORE OR AFTER OPERATION	49
G393 REMOVE OR INSTALL ENGINE BLEED AIR SYSTEM COMPONENTS	48
G354 PERFORM ENGINE LEAK CHECKS	46
G399 REMOVE OR INSTALL ENGINE FUEL MANIFOLDS OR NOZZLES	46
G468 SERVICE ENGINE OIL SYSTEMS	46

TABLE 7
REPRESENTATIVE TASKS PERFORMED BY DAFSC 42672 PERSONNEL

<u>TASKS</u>	<u>PERCENT PERFORMING (N=1,486)</u>
C86 WRITE APRs	79
B54 SUPERVISE JET ENGINE MECHANICS (AFSC 42652)	67
A1 ASSIGN MAINTENANCE AND REPAIR WORK	63
C81 INSPECT PERSONNEL FOR COMPLIANCE WITH MILITARY STANDARDS	62
D91 ANNOTATE TRAINING RECORDS	62
E159 COMPLETE AFTO FORMS 350 (REPAIRABLE ITEM PROCESSING TAG)	62
A8 DETERMINE WORK PRIORITIES	61
B32 COUNSEL SUBORDINATES ON MILITARY-RELATED MATTERS	61
D94 CONDUCT OJT	60
F230 INSPECT AREAS FOR FOREIGN OBJECT DAMAGE (FOD) ITEMS	60
G278 INSPECT ENGINE PLUMBING	55
E158 COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	53
G273 INSPECT ENGINE EXHAUST SECTION COMPONENTS	53
D97 COUNSEL TRAINEES ON TRAINING PROGRESS	52
G270 INSPECT ENGINE COMPRESSORS	51
G276 INSPECT ENGINE OIL FILTERS	51
C88 WRITE RECOMMENDATIONS FOR AWARDS AND DECORATIONS	50
G373 PLACE PROTECTIVE COVERS ON ENGINES	50
G400 REMOVE OR INSTALL ENGINE FUEL SYSTEM COMPONENTS	50
G464 SEAL, PLUG, OR CAP LINES OR OPENINGS	50
G280 INSPECT ENGINE TRAILERS OR STANDS	49
G282 INSPECT ENGINES BEFORE OR AFTER OPERATION	49
G406 REMOVE OR INSTALL ENGINE PLUMBING	49
E141 COMPLETE AF FORMS 2005 (ISSUE/TURN IN REQUEST)	47
E182 INVENTORY SPECIAL TOOLS, SUCH AS CONSOLIDATED TOOL KITS AND TOOL ROOM CHITS	47
G404 REMOVE OR INSTALL ENGINE OIL SYSTEM COMPONENTS	47
F231 INSPECT ENGINES OR ASSOCIATED EQUIPMENT FOR CORROSION	43

perform both a technical and supervisory job. Data on skill-level distribution across jobs and relative time spent in duties are shown in Tables 4 and 8, respectively.

The sample captured 585 DAFSC 42633/53 individuals, accounting for 58 percent of the total AFSC 426X3 sample. Most of their responsibilities are very technical, primarily dealing with both general aircraft engine and propeller maintenance tasks. These two duties account for 62 percent of their total job time. Like the AFSC 426X2 junior skill levels, many of their tasks involve removal or installation of engine components (see Table 9). Most work in the Flightline job.

DAFSC 42673 personnel accounted for 42 percent of the total AFSC 426X3 sample, numbering 425 members. Though supervisory tasks are clearly evident in their job description, these areas only account for 25 percent of their total job time. Their job is still primarily technical in nature. Many of their top technical tasks deal with inspecting engine components (see Table 10). Seven-skill level members thus perform both the technical tasks done by the 3- and 5-skill levels and the supervisory tasks that go along with increased experience and seniority in the career ladder. The majority of these skill level members also work in the Flightline job.

C. DAFSC 42699 Analysis: These 211 individuals make up the most senior group in the survey sample. They have shifted their job duties from primarily working on technical tasks to performing many of the managerial functions of the career ladder. Several of their top tasks deal with inspecting and evaluating, which accounts for 27 percent of their total job time (see Table 11). Their overall supervisory duties account for 71 percent of their total job time. They are primarily found in the Supervisory job (Table 4), but also make up 58 percent of the small Higher Headquarters Personnel job. A listing of their representative tasks is found in Table 12.

AFR 39-1 SPECIALTY DESCRIPTIONS FOR AFSCs 454X0A/B AND 45490 (AFSCs 426X2/X3, 42699)

Occupational survey data are also used to examine classification issues. By comparing those jobs performed in a career ladder to the Specialty Descriptions, judgments can be made about the Descriptions' completeness and accuracy.

AFR 39-1 Specialty Descriptions are intended to give a very broad description of the responsibilities held by the various skill levels within a career ladder. The most recent AFR 39-1 in the propulsion career ladder (effective 31 October 1988), specifies the new AFSC 454X0A/B and 45490 designations. Though this study has used the former propulsion AFSC designations, for purposes of this analysis, the latest AFR 39-1 for AFSC 454X0A/B will be reviewed.

TABLE 8
RELATIVE TIME SPENT ON DUTIES BY DAFSC 426X3 SKILL-LEVEL MEMBERS

<u>DUTIES</u>	DAFSC 42633/53 (N=585)	DAFSC 42673 (N=425)
A. ORGANIZING AND PLANNING	1	7
B. DIRECTING AND IMPLEMENTING	1	6
C. INSPECTING AND EVALUATING	*	7
D. TRAINING	2	6
E. PERFORMING GENERAL ADMINISTRATIVE AND SUPPLY TASKS	9	12
F. PERFORMING QUALITY ASSURANCE TASKS	2	4
G. PERFORMING GENERAL AIRCRAFT ENGINE MAINTENANCE TASKS	47	32
H. PERFORMING GENERAL PROPELLER MAINTENANCE TASKS	15	11
I. PERFORMING FLIGHTLINE MAINTENANCE ON AIRCRAFT ENGINES	4	4
J. PERFORMING FLIGHTLINE MAINTENANCE ON PROPELLERS	2	2
K. PERFORMING IN-SHOP MAINTENANCE ON AIRCRAFT ENGINES	5	2
L. PERFORMING IN-SHOP MAINTENANCE ON PROPELLERS	4	2
M. PERFORMING ROTATING ENGINE ASSEMBLY WEIGHT AND BALANCE FUNCTIONS	*	*
N. PERFORMING TEST CELL TASKS	*	*
O. MAINTAINING AUXILIARY POWER UNITS (APU)	*	*
P. MAINTAINING SMALL GAS TURBINE (SGT) ENGINES	*	*
Q. PERFORMING ENGINE MONITORING SYSTEM TASKS	*	*
R. PERFORMING ENGINE MANAGEMENT TASKS	*	1
S. MAINTAINING NONPOWERED ENGINE SUPPORT EQUIPMENT	2	*
T. PERFORMING CROSS UTILIZATION TRAINING (CUT) TASKS	2	1

* Less than 1 percent

TABLE 9
REPRESENTATIVE TASKS PERFORMED BY DAFSC 42633/53 PERSONNEL

<u>TASKS</u>	<u>PERCENT PERFORMING (N=585)</u>
G400 REMOVE OR INSTALL ENGINE FUEL SYSTEM COMPONENTS	75
E159 COMPLETE AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	72
G404 REMOVE OR INSTALL ENGINE OIL SYSTEM COMPONENTS	72
G276 INSPECT ENGINE OIL SYSTEMS	70
G464 SEAL, PLUG, OR CAP LINES OR OPENINGS	70
G426 REMOVE OR INSTALL OIL COOLER ASSEMBLIES	68
G468 SERVICE ENGINE OIL SYSTEMS	68
G455 RIG ENGINE CONTROL LINKAGES	67
E158 COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	65
G429 REMOVE OR INSTALL PORTIONS OF COWLING, NACELLES, ACCESS DOORS, OR PANELS	65
G283 INSPECT FUEL FILTERS	64
G406 REMOVE OR INSTALL ENGINE PLUMBING	64
G408 REMOVE OR INSTALL ENGINE TAIL PIPES	64
G256 CLEAN ENGINE PARTS USING CLEANERS, OTHER THAN ULTRASONIC CLEANERS	62
G259 CONNECT OR DISCONNECT TEST EQUIPMENT TO ENGINES	62
G278 INSPECT ENGINE PLUMBING	62
G354 PERFORM ENGINE LEAK CHECKS	61
G399 REMOVE OR INSTALL ENGINE FUEL MANIFOLDS OR NOZZLES	61
G470 SERVICE STARTER UNITS	60
G245 ADJUST ENGINE SYSTEM COMPONENTS	59
H524 REMOVE OR INSTALL PROPELLER BRUSH BLOCKS	59
H521 REMOVE OR INSTALL PITCH LOCK REGULATORS	56
H523 REMOVE OR INSTALL PROPELLER ANTI-ICING AFTERBODIES	56
H545 TORQUE PROPELLERS ON ENGINE SHAFT	56
H538 REWORK PROPELLER BLADE NICKS, BURRS, OR SCRATCHES	55

TABLE 10
REPRESENTATIVE TASKS PERFORMED BY DAFSC 42673 PERSONNEL

<u>TASKS</u>	<u>PERCENT PERFORMING (N=425)</u>
C86 WRITE APRs	79
B57 SUPERVISE TURBOPROP PROPULSION MECHANICS (AFSC 42653)	68
E159 COMPLETE AFTO FORMS 350 (REPAIRABLE ITEM PROCESSING TAG)	68
C81 INSPECT PERSONNEL FOR COMPLIANCE WITH MILITARY STANDARDS	64
G400 REMOVE OR INSTALL ENGINE FUEL SYSTEM COMPONENTS	64
E158 COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	63
D94 CONDUCT OJT	62
G404 REMOVE OR INSTALL ENGINE OIL SYSTEM COMPONENTS	62
A1 ASSIGN MAINTENANCE AND REPAIR WORK	61
D91 ANNOTATE TRAINING RECORDS	61
G271 INSPECT ENGINE CONTROLS	61
G276 INSPECT ENGINE OIL FILTERS	61
G278 INSPECT ENGINE PLUMBING	60
D108 MAINTAIN TRAINING RECORDS	58
B32 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	58
G270 INSPECT ENGINE COMPRESSORS	58
F230 INSPECT AREAS FOR FOREIGN OBJECT DAMAGE (FOD) ITEMS	57
G362 PERFORM IN-PROGRESS INSPECTIONS	56
G464 SEAL, PLUG, OR CAP LINES OR OPENINGS	56
G455 RIG ENGINE CONTROL LINKAGES	55
D97 COUNSEL TRAINEES ON TRAINING PROGRESS	54
H494 INSPECT PROPELLERS OR RELATED COMPONENTS	53
B56 SUPERVISE APPRENTICE TURBOPROP PROPULSION MECHANICS (AFSC 42633)	52
H542 RIG PROPELLER CONTROL LINKAGES	51
H545 TORQUE PROPELLERS ON ENGINE SHAFT	50

TABLE 11
RELATIVE TIME SPENT ON DUTIES BY DAFSC 42699 SKILL-LEVEL MEMBERS

<u>DUTIES</u>	DAFSC 42699 (N=211)
A. ORGANIZING AND PLANNING	19
B. DIRECTING AND IMPLEMENTING	20
C. INSPECTING AND EVALUATING	27
D. TRAINING	7
E. PERFORMING GENERAL ADMINISTRATIVE AND SUPPLY TASKS	11
F. PERFORMING QUALITY ASSURANCE TASKS	5
G. PERFORMING GENERAL AIRCRAFT ENGINE MAINTENANCE TASKS	5
H. PERFORMING GENERAL PROPELLER MAINTENANCE TASKS	*
I. PERFORMING FLIGHTLINE MAINTENANCE ON AIRCRAFT ENGINES	*
J. PERFORMING FLIGHTLINE MAINTENANCE ON PROPELLERS	*
K. PERFORMING IN-SHOP MAINTENANCE ON AIRCRAFT ENGINES	*
L. PERFORMING IN-SHOP MAINTENANCE ON PROPELLERS	*
M. PERFORMING ROTATING ENGINE ASSEMBLY WEIGHT AND BALANCE FUNCTIONS	*
N. PERFORMING TEST CELL TASKS	*
O. MAINTAINING AUXILIARY POWER UNITS (APU)	*
P. MAINTAINING SMALL GAS TURBINE (SGT) ENGINES	*
Q. PERFORMING ENGINE MONITORING SYSTEM TASKS	*
R. PERFORMING ENGINE MANAGEMENT TASKS	4
S. MAINTAINING NONPOWERED ENGINE SUPPORT EQUIPMENT	*
T. PERFORMING CROSS UTILIZATION TRAINING (CUT) TASKS	*

* Less than 1 percent

TABLE 12
REPRESENTATIVE TASKS PERFORMED BY DAFSC 42699 PERSONNEL

<u>TASKS</u>	<u>PERCENT PERFORMING (N=211)</u>
C86 WRITE APRS	82
B32 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	81
C88 WRITE RECOMMENDATIONS FOR AWARDS AND DECORATIONS	79
B48 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	78
C81 INSPECT PERSONNEL FOR COMPLIANCE WITH MILITARY STANDARDS	77
A2 ASSIGN PERSONNEL TO DUTY POSITIONS	75
C77 INDORSE AIRMAN PERFORMANCE REPORTS (APRs)	73
C65 EVALUATE INSPECTION REPORT FINDINGS	72
A6 DETERMINE LOGISTICS REQUIREMENTS, SUCH AS SPACE, PERSONNEL, OR EQUIPMENT	71
A13 DEVELOP SELF-INSPECTION PROGRAMS	69
A8 DETERMINE WORK PRIORITIES	67
A24 SCHEDULE LEAVES	66
B43 IMPLEMENT SELF-INSPECTION PROGRAMS	66
B31 CONDUCT SUPERVISORY ORIENTATIONS OF NEWLY ASSIGNED PERSONNEL	64
C61 ANALYZE WORKLOAD REQUIREMENTS	63
C71 EVALUATE PERSONNEL FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	60
B42 IMPLEMENT SAFETY OR SECURITY PROGRAMS	59
B55 SUPERVISE JET ENGINE TECHNICIANS (AFSC 42672)	58
C69 EVALUATE MAINTENANCE OR USE OF WORKSPACE, EQUIPMENT, OR SUPPLIES	57
C73 EVALUATE SUGGESTIONS	56
C70 EVALUATE PERSONNEL FOR COMPLIANCE WITH PERFORMANCE STANDARDS OR TECHNICAL ORDERS	55
C75 EVALUATE WORK SCHEDULES	55
A1 ASSIGN MAINTENANCE AND REPAIR WORK	54
C72 EVALUATE SAFETY OR SECURITY PROGRAMS	54
C66 EVALUATE MAINTENANCE DATA COLLECTION (MDC) REPORTS	50

When compared to survey data, the AFR 39-1 Specialty Description for the Aerospace Propulsion Specialist (DAFSCs 45410, 45430, 45450), dated 31 October 1988, accurately reflects the duties and tasks being accomplished at those skill levels. Performing the various inspections and repairs on jet engines, turboprops, and turboshafts is well covered for both shreds. One job identified in the survey and not clearly covered in the Duties and Responsibilities section is the Engine Management job. A recommended extraction from the Specialty Description is reference to turbojet missile engines. Though no tasks in the inventory specifically deal with these functions, conversations with subject-matter experts have indicated few propulsion specialty personnel working in these areas.

The Aerospace Propulsion Technician (DAFSC 45470) Specialty Description, dated 31 October 1988, is also well supported by survey data. The primarily technical nature of their job is clearly evident in the description. Turbojet missile engines are still mentioned in this description, however, and should be considered for deletion.

The AFR 39-1 Specialty Description for Aerospace Propulsion Superintendent (DAFSC 45490 and CEM Code 11300), dated 31 October 1988, generally portrays the managerial aspects of these skill levels. These are the managers of the career ladder, with many responsibilities in those areas. There is again mention of turbo engines installed on missiles, which has been recommended for removal from the specialty description. An additional area to consider removing involves the comment on the technical functions performed by these individuals. They are listed in the Duties and Responsibilities section as troubleshooting and isolating malfunctions on engines, propellers and related systems. Very few at this level, however, actually perform these technical duties.

AFSCs 426X2 AND 426X3 TRAINING ANALYSIS

Information gathered from occupational survey data is also used to assist in the development and review of formal training programs or training documents such as STSs and Plans of Instruction (POI). A particularly important factor used in analyzing these training documents is the percentage of an appropriate group, such as first-enlistment (1-48 months TAFMS) personnel, performing tasks. In addition, the secondary task factors of TE and TD ratings (as explained in the Task Factor Administration section) provide useful information.

Technical school personnel have matched nonmanagerial inventory tasks to appropriate STS and POI sections to facilitate the use of occupational survey data in ascertaining the relevance and completeness of these documents. Computer listings which display the STS or POI with matched tasks and survey data are used in the analysis to show which sections of the STS or POI are most relevant to a career ladder. Survey data may also be used to show which tasks not matched to these documents may need to be included due to the extent to which they are performed in a career ladder and their importance to training.

To aid in any further detailed review of training documents, computer product displays have been forwarded to the technical school. In addition to a summary of that information, this section contains an analysis of the first-enlistment personnel in each AFSC. Figures 2 and 3, respectively, display the distribution of AFSCs 426X2 and 426X3 first-enlistment personnel across the jobs discussed in the SPECIALTY JOBS section of this report.

Training Emphasis and Task Difficulty Data

The objective of collecting TE and TD ratings is to develop rank-ordered listings of tasks in terms of importance for first-enlistment training and in terms of difficulty. A listing of training emphasis and task difficulty data are included for each AFSC's tasks in Tables 13-16. (For a more detailed explanation of both types of ratings, see Task Factor Administration in the SURVEY METHODOLOGY section.) Tasks performed by moderate to high percentages of personnel may warrant resident technical training. TE and TD ratings, composed of the opinions of experienced career ladder personnel, are secondary factors that may assist training developers in deciding which tasks should be emphasized for entry-level training. Those tasks receiving high task factor ratings, but performed by low percentages of first-enlistment personnel, may be more appropriately planned for OJT programs within the career ladder. Low task factor ratings may highlight tasks best left out of training for new personnel, but this decision must be weighed against percentages of personnel performing the tasks and other task considerations. A final product useful in making training decisions is the Automated Training Indicator (ATI). ATI takes first-enlistment, TE, and TD data and computes training decisions based on Atch 1, ATCR 52-22.

AFSC 426X2 Training Issues

A. AFSC 426X2 First-Enlistment Personnel. First-enlistment AFSC 426X2 personnel account for 36 percent of the Jet Engine sample, with 1,526 members. Personnel in this career ladder group perform a largely technical job consisting primarily of general aircraft maintenance tasks. Performing this duty accounts for 61 percent of their total job time. Many of their tasks involve removing or installing and inspecting engine system components. Forty percent start their career in the In-Shop Personnel job (see Figure 2). They perform a job averaging 82 tasks. A list of representative tasks is included in Table 17.

B. Equipment. The AFSC 426X2 career ladder is responsible for the maintenance of a number of different engines and their personnel use several different kinds of test and support equipment in performing their jobs. Survey data can point out which engines and equipment are most used and by what group. This information can then be used by training specialists to determine which types of engines and equipment should be emphasized for first-term training. Table 18 displays those pieces of equipment utilized by 10 percent or more of first-enlistment personnel. Table 19 exhibits the percentages of first-enlistment and DAFSC groups utilizing the various engines maintained in the career ladder. A full computer listing of all engine and equipment items,

TABLE 13

AFSC 426X2 TASKS RATED HIGHEST IN TASK DIFFICULTY

TASKS	TASK DIF*	PERCENT PERFORMING			
		1ST ENL	5- LVL	7- LVL	
A15 DRAFT BUDGET REQUIREMENTS	8.15	1	2	6	
C89 WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS, OTHER THAN TRAINING REPORTS					
D99 DEVELOP CAREER DEVELOPMENT COURSE (CDC) MATERIALS	7.95	1	2	11	
G312 ISOLATE MALFUNCTIONS WITHIN AFTERBURNER OR AUGMENTOR SYSTEMS	7.81	1	2	3	
G311 ISOLATE MALFUNCTIONS CONTRIBUTING TO ENGINE STALL OR FLAMEOUT	7.79	13	17	19	
G308 ISOLATE ELECTRICAL OR ELECTRONIC MALFUNCTIONS	7.73	19	28	31	
C62 EVALUATE BUDGET REQUIREMENTS	7.71	11	19	23	
C88 WRITE RECOMMENDATIONS FOR AWARDS AND DECORATION	7.57	1	1	5	
A9 DEVELOP COST-REDUCTION PROGRAMS	7.44	1	10	50	
G306 INTERPRET ENGINE WIRING OR SCHEMATIC DIAGRAMS	7.32	3	4	10	
C87 WRITE CIVILIAN PERFORMANCE APPRAISALS	7.30	20	27	31	
A16 ESTABLISH ORGANIZATIONAL POLICIES	7.29	1	1	8	
G357 PERFORM FAN TRIM BALANCES	7.24	1	2	9	
G313 ISOLATE MALFUNCTIONS WITHIN AGET SYSTEMS	7.23	3	4	4	
C63 EVALUATE CAUSES OF MISSION OPERATIONAL DISCREPANCIES	7.19	2	3	4	
C82 INVESTIGATE ACCIDENTS OR INCIDENTS	7.14	2	2	12	
N774 ASSEMBLE OR DISASSEMBLE PORTABLE AIRCRAFT ENGINE TEST STANDS	7.06	1	2	14	
G479 TRIM OPERATING ENGINES	7.03	3	5	6	
I549 ANALYZE MALFUNCTIONS WITHIN AUXILIARY POWER SYSTEMS	7.02	18	26	30	
M765 PERFORM PERMANENT BALANCE CORRECTIONS ON COMPRESSOR ROTORS	6.97	5	7	9	
M766 PERFORM PERMANENT BALANCE CORRECTIONS ON TURBINE ROTORS	6.96	1	1	0	
M758 DYNAMICALLY BALANCE COMPRESSORS	6.96	1	0	0	
B38 DIRECT TEST CELL ACTIVITIES	6.95	1	1	0	
I567 PERFORM INSTALLED ENGINE TRIM	6.93	1	4	12	
C64 EVALUATE EQUIPMENT MODIFICATION DATA	6.93	10	16	21	
G322 ISOLATE MALFUNCTIONS WITHIN ENGINE FUEL SYSTEMS	6.90	1	3	10	
M759 DYNAMICALLY BALANCE TURBINES	6.86	22	30	34	
		1	1	1	

* Average Task Difficulty = 5.00 with SD of 1.00 (High = 6.00)

TABLE 14

AFSC 426X2 TASKS RATED HIGHEST IN TRAINING EMPHASIS

TASKS	TRAINING EMPHASIS*	PERCENT MEMBERS PERFORMING 1-48 MONTHS TAFMS (N=1,526)																								
		5.73	5.69	5.59	5.54	5.49	5.47	5.46	5.38	5.28	5.22	5.20	5.19	5.11	5.06	5.03	5.03	4.98	4.98	4.98	4.96	4.96	4.94	4.94	4.89	4.87
G400 REMOVE OR INSTALL ENGINE FUEL SYSTEM COMPONENTS		70	66	71	69	68	68	62	61	55	50	44	25	52	42	49	43	44	44	42	42	39	29	54	50	
G278 INSPECT ENGINE PLUMBING																										
G406 REMOVE OR INSTALL ENGINE PLUMBING																										
E159 COMPLETE AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)																										
G404 REMOVE OR INSTALL ENGINE OIL SYSTEM COMPONENTS																										
G249 BLEND ENGINE COMPRESSOR BLADES																										
G276 INSPECT ENGINE OIL FILTERS																										
G158 COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)																										
G283 INSPECT FUEL FILTERS																										
G270 INSPECT ENGINE COMPRESSORS																										
G250 BLEND ENGINE FAN BLADES																										
G246 ADJUST OPERATING ENGINES																										
G391 REMOVE OR INSTALL ENGINE ANTI-ICING SYSTEM COMPONENTS																										
G259 CONNECT OR DISCONNECT TEST EQUIPMENT TO ENGINES																										
G279 INSPECT ENGINE STATOR VANES																										
G468 SERVICE ENGINE OIL SYSTEMS																										
G282 INSPECT ENGINES BEFORE AND AFTER OPERATION																										
G419 REMOVE OR INSTALL IGNITION SYSTEM COMPONENTS																										
G464 SEAL, PLUG, OR CAP LINES OR OPENINGS																										
G260 DRAIN AND FLUSH ENGINE OIL SYSTEMS																										
G288 INSPECT MAGNETIC ENGINE CHIP DETECTORS																										
G277 INSPECT ENGINE OR ACCESSORY SPLINES																										
G472 TAKE JOINT OIL ANALYSIS SAMPLES																										
G273 INSPECT ENGINE EXHAUST SECTION COMPONENTS																										
G280 INSPECT ENGINE TRAILERS OR STANDS																										

* Average Training Emphasis = 1.72 with SD of 1.33 (High = 3.05)

TABLE 15

AFSC 426X3 TASKS RATED HIGHEST IN TASK DIFFICULTY

TASKS	TASK DIFF*	PERCENT PERFORMING		
		1ST ENL	5- LVL	7- LVL
A15 DRAFT BUDGET REQUIREMENTS	8.25	1	3	6
G308 ISOLATE ELECTRICAL OR ELECTRONIC MALFUNCTIONS	8.08	26	33	42
C89 WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS, OTHER THAN TRAINING REPORTS	8.03	1	1	9
H503 ISOLATE MALFUNCTIONS WITHIN PROPELLER SYNCHROPHASER SYSTEMS	7.76	34	43	42
M759 DYNAMICALLY BALANCE TURBINES	7.75	0	0	0
C88 WRITE RECOMMENDATIONS FOR AWARDS AND DECORATION	7.47	0	5	46
L690 ASSEMBLE OR DISASSEMBLE VALVE HOUSINGS	7.47	7	7	3
G357 PERFORM FAN TRIM BALANCES	7.45	0	1	0
M765 PERFORM PERMANENT BALANCE CORRECTIONS ON COMPRESSOR ROTORS	7.43	0	0	0
M766 PERFORM PERMANENT BALANCE CORRECTIONS ON TURBINE ROTORS	7.43	0	0	0
M767 PERFORM RUNOUT CHECKS ON COMPRESSOR ROTOR CASINGS	7.43	0	0	0
M768 PERFORM RUNOUT CHECKS ON ROTOR HUBS OR ASSEMBLIES	7.43	0	0	0
M770 TEST FOR ROTOR BALANCE	7.43	0	0	0
D99 DEVELOP CAREER DEVELOPMENT COURSE (CDC) MATERIALS	7.43	1	1	2
C62 EVALUATE BUDGET REQUIREMENTS	7.36	0	1	5
H537 REPAIR SYNCHROPHASERS	7.31	3	4	3
N774 ASSEMBLE OR DISASSEMBLE PORTABLE AIRCRAFT ENGINE TEST STANDS	7.28	1	2	2
G306 INTERPRET ENGINE WIRING OR SCHEMATIC DIAGRAMS	7.19	28	34	44
C63 EVALUATE CAUSES OF MISSION OPERATIONAL DISCREPANCIES	7.16	2	3	12
G459 RIG RCVVS TO BACKUP UNIFIED OR FUEL CONTROLS	7.13	2	2	1
M758 DYNAMICALLY BALANCE COMPRESSORS	7.13	0	0	0
M769 STATIC BALANCE BLADED DISC ASSEMBLIES	7.12	0	0	0
G311 ISOLATE MALFUNCTIONS CONTRIBUTING TO ENGINE STALL OR FLAMEOUT	7.11	26	35	36
C86 WRITE APRS	7.11	1	23	79
C87 WRITE CIVILIAN PERFORMANCE APPRAISALS	7.11	0	1	5
C82 INVESTIGATE ACCIDENTS OR INCIDENTS	7.10	0	1	14
G350 OPERATE COMPUTER AUTOMATED MAINTENANCE OR MANAGEMENT SYSTEMS	7.00	5	6	9

* Average Task Difficulty = 5.00 with SD of 1.00 (High = 6.00)

TABLE 16

AFSC 426X3 TASKS RATED HIGHEST IN TRAINING EMPHASIS

TASKS	TRAINING EMPHASIS*	PERCENT MEMBERS PERFORMING 1-48 MONTHS TAFMS (N=288)	
		5.73	48
J591 REMOVE OR INSTALL PROPELLERS ON AIRCRAFT	5.68	52	
H542 RIG PROPELLER CONTROL LINKAGES	5.65	65	
G455 RIG ENGINE CONTROL LINKAGES	5.57	49	
H534 REMOVE OR INSTALL VALVE HOUSINGS	5.05	40	
G341 ISOLATE MALFUNCTIONS WITHIN TEMPERATURE DATUM SYSTEMS	5.03	48	
G327 ISOLATE MALFUNCTIONS WITHIN ENGINE OIL SYSTEMS	5.03	74	
G400 REMOVE OR INSTALL ENGINE FUEL SYSTEM COMPONENTS	5.03	74	
G456 RIG ENGINE THROTTLE CONTROL SYSTEMS	5.00	52	
H521 REMOVE OR INSTALL PITCH LOCK REGULATORS	4.97	53	
I577 REMOVE OR INSTALL ENGINES IN AIRCRAFT	4.87	40	
E159 COMPLETE AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	4.78	72	
G320 ISOLATE MALFUNCTIONS WITHIN ENGINE CONTROL LINKAGE SYSTEMS	4.78	47	
H480 ADJUST BETA SCHEDULES ON HAMILTON STANDARD TURBOPROPELLERS	4.78	32	
G438 REMOVE OR INSTALL TEMPERATURE DATUM SYSTEM COMPONENTS	4.73	58	
G259 CONNECT OR DISCONNECT TEST EQUIPMENT TO ENGINES	4.70	62	
G404 REMOVE OR INSTALL ENGINE OIL SYSTEM COMPONENTS	4.70	72	
H545 TORQUE PROPELLERS ON ENGINE SHAFT	4.70	56	
G245 ADJUST ENGINE SYSTEM COMPONENTS	4.68	58	
G326 ISOLATE MALFUNCTIONS WITHIN ENGINE NEGATIVE TORQUE SYSTEMS (NTS)	4.65	41	
H524 REMOVE OR INSTALL PROPELLER BRUSH BLOCKS	4.65	59	
H543 RIG VALVE HOUSINGS	4.65	41	
H496 INTERPRET PROPELLER WIRING OR SCHEMATIC DIAGRAMS	4.62	28	
J579 ADJUST NEGATIVE TORQUE SYSTEM (NTS) COMPONENTS	4.60	44	
G158 COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	4.57	65	
G407 REMOVE OR INSTALL ENGINE REDUCTION GEARBOX ASSEMBLY COMPONENTS	4.54	52	

* Average Training Emphasis = 1.59 with SD of 1.37 (High = 2.96)

AFSC 426X2 FIRST-ENLISTMENT JOBS

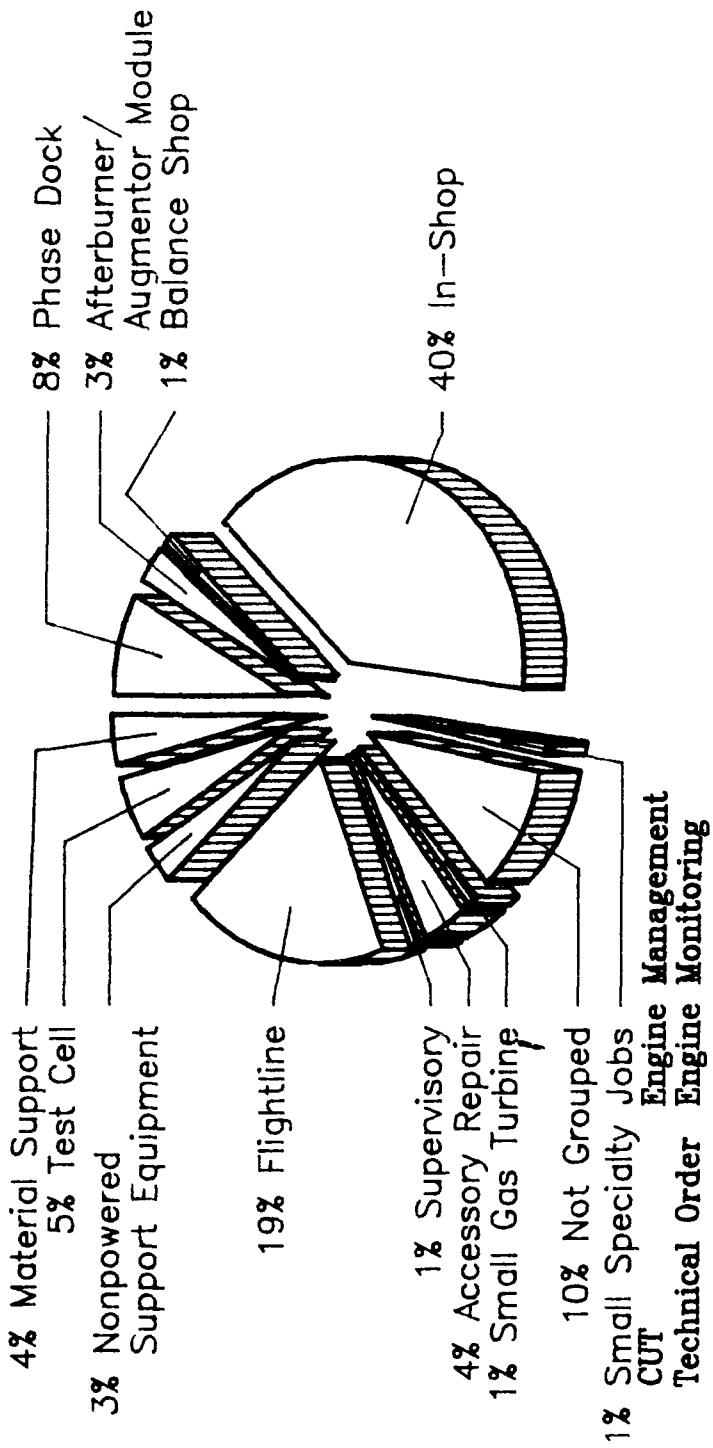


Figure 2

TABLE 17
REPRESENTATIVE TASKS PERFORMED BY FIRST-ENLISTMENT
(1-48 MONTHS TAFMS) AFSC 426X2 PERSONNEL

<u>TASKS</u>	<u>PERCENT PERFORMING (N=1,526)</u>
G406 REMOVE OR INSTALL ENGINE PLUMBING	71
G400 REMOVE OR INSTALL ENGINE FUEL SYSTEM COMPONENTS	70
G464 SEAL, PLUG, OR CAP LINES OR OPENINGS	70
E159 COMPLETE AFTO FORMS 350 (REPAIRABLE ITEM PROCESSING TAG)	69
G404 REMOVE OR INSTALL ENGINE OIL SYSTEM COMPONENTS	68
G278 INSPECT ENGINE PLUMBING	66
G373 PLACE PROTECTIVE COVERS ON ENGINES	65
G276 INSPECT ENGINE OIL FILTERS	62
E158 COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	61
F230 INSPECT AREAS FOR FOREIGN OBJECT DAMAGE (FOD) ITEMS	58
G426 REMOVE OR INSTALL OIL COOLER ASSEMBLIES	57
G283 INSPECT FUEL FILTERS	55
G273 INSPECT ENGINE EXHAUST SECTION COMPONENTS	54
G397 REMOVE OR INSTALL ENGINE EXHAUST SECTION COMPONENTS	54
G256 CLEAN ENGINE PARTS USING CLEANERS, OTHER THAN ULTRASONIC CLEANERS	52
G391 REMOVE OR INSTALL ENGINE ANTI-ICING SYSTEM COMPONENTS	52
G262 DRAIN FUEL FILTERS	51
G419 REMOVE OR INSTALL IGNITION SYSTEM COMPONENTS	51
G270 INSPECT ENGINE COMPRESSORS	50
G280 INSPECT ENGINE TRAILERS OR STANDS	50
G399 REMOVE OR INSTALL ENGINE FUEL MANIFOLDS OR NOZZLES	50
G279 INSPECT ENGINE STATOR VANES	49
G381 REMOVE OR INSTALL ACCESSORY GEARBOX ASSEMBLY COMPONENTS	49
G393 REMOVE OR INSTALL ENGINE BLEED AIR SYSTEM COMPONENTS	48
G396 REMOVE OR INSTALL ENGINE ELECTRICAL COMPONENTS	46

TABLE 18
EQUIPMENT/TOOLS USED BY 10 PERCENT OR MORE
OF AFSC 426X2 FIRST-ENLISTMENT PERSONNEL

<u>EQUIPMENT/TOOLS</u>	<u>PERCENT PERFORMING</u>
TORQUE WRENCH	83
THICKNESS GAUGE	62
ENGINE REMOVAL, INSTALLATION, AND TRANSPORTATION EQUIPMENT	61
DEPTH GAUGE	54
RIGID BOROSCOPE KIT	52
FLEX BOROSCOPE KIT	50
MICROMETER VERNIER SCALE	49
THROTTLE RIG KIT	48
MAINTENANCE PLATFORM/STAND	43
POWERED OVERHEAD HOIST	43
MICROMETER CALIPER	42
BEARING HEATER	34
MANUAL OVERHEAD HOIST	34
SWEENEY WRENCH	33
BOBTAIL JEEP	30
SERVICING OIL CART	28
VOLT-OHM-MULTIMETER (VOM)	28
COMPUTER	26
TUG	26
A-FRAME HOIST	25
BEARING FREEZER	25
FORKLIFT	24
CALCULATOR	23
DIRECT PRESSURE GAUGE	23
JET CAL ANALYZER	20
BENCH GRINDER	19
REAR COMPRESSOR VARIABLE VANE (RCVV)	18
ENGINE TRIM BOX (ETB)	17
GAS TURBINE, AM-32A-60	17
PSM-6 OHMMETER	16
BEARING CLEANER	14
HOBART DIESEL GENERATOR	14
PORTABLE HOIST	14
TORQUE HYDRAULIC WRENCH	14
ENGINE ROLLOUT KIT	12
IGNITION TEST SET	12
THERMOMETER	12
VIBRATION ANALYZER	12
BEARING DEMAGNETIZER	11
HYDRAULIC SERVICING CART	11
TRUE SURFACE	11
AIRCRAFT ENGINE TEST STAND	10

TABLE 19
AFSC 426X2 ENGINES MAINTAINED
(PERCENT MEMBERS PERFORMING)

<u>TYPE OF ENGINE</u>	<u>FIRST- ENLISTMENT PERSONNEL (N=1,526)</u>	<u>5-SKILL LEVEL (N=2,362)</u>	<u>7-SKILL LEVEL (N=1,486)</u>
TF33 (B-52H, E-3, C-141, C-135B, EC-135C/H/J)	18	18	19
F100-PW-100 (F-15)	17	15	14
J57 (C-135A, KC-135A/D/Q, EC-135G/L, B52G)	16	18	16
F100-PW-200 (F-16)	9	10	11
J79 (F-4, RF-4C)	9	9	10
J85 (A-37, F-5E/F, T-38)	9	8	8
TF34 (A-10)	8	8	7
TF39 (C-5)	7	8	7
TF30 (F-111, FB111A, EF-111A)	6	7	8
J69 (T-37)	5	4	4
F100-PW-220 (F-16)	3	3	4
F108 (KC-135R)	3	3	4
F110-GE-100 (F-16)	3	4	6
CF6 (F103) (KC-10A, E-4)	2	2	3
F101 (B-1)	2	2	2
J58 (SR-71)	1	*	*
F113 (C-20)	*	*	*
J33 (T-33)	*	1	1
J60 (C-140, T-39A/B)	*	1	2
J75 (F-106, TR-1, U-2)	*	*	2
JT3D (C-137)	*	*	*
JT8D (C-9, T-43)	*	*	1
TF41 (A-7D)	*	*	*

* Less than 1 percent

and the associated percent members utilizing, is included in the Training Extract for this career ladder. This Extract is supplied to all training and utilization personnel, as well as other interested users who require this information.

C. AFSC 454X0A (426X2) Specialty Training Standard (STS). An STS is intended to provide comprehensive coverage of tasks performed by career ladder personnel. For purposes of this analysis, the most recent STS, written since the Rivet Workforce conversion, was reviewed. To assess the effectiveness of the AFSC 454X0A STS, dated October 1988, STS sections were compared to survey data from career ladder groups, such as TAFMS and DAFSC groups. Sections containing managerial and general information areas were not reviewed. In addition to examining how well survey data supported STS items, 3-skill level proficiency codes were examined to determine how well they correspond to first-enlistment airmen percent performing levels. Lastly, analysis explored areas lacking coverage in the STS and possibly warranting inclusion.

The diversity of jobs in the career ladder (as explained earlier) has resulted in several STS items not being supported by OSR data. A career ladder spread across a multitude of jobs results in several tasks being specific to only a few jobs. The criterion set forth in AFR 8-13 (dated 1 August 1986) and AFR 8-13/ATC Supplement 1 (dated 2 March 1987) for STS review calls for items in the STS to be performed by at least 20 percent of a career ladder group, such as skill level, to justify inclusion. Because of the number of different functions being performed by jet engine personnel, several did not meet this criterion. The majority of these STS items were in Paragraph 15 - MAINTENANCE OF JET ENGINES and Paragraph 16 - ENGINE BLOCK TESTING. Most in Paragraph 15 deal with the repair of various engine components.

The number of STS items not meeting the minimum 20 percent performing standard is too numerous to discuss in great detail and involve a number of important career ladder functional areas. Those matched to tasks performed by under 20 percent of career ladder groups are included in Appendix B. As seen from this listing, though several may indeed warrant removal from the STS, a number of others should not be excluded from the STS without further review. An STS is a career ladder-wide document and should include functions being performed by career ladder members. Thus, if a job is being done in a specialty, it could be argued that the job should be covered in the STS, even though less than 20 percent perform associated tasks.

AFR 8-13 does provide some latitude in determining whether or not an STS item remains if not performed by 20 percent or more of one of the criterion groups. In career ladders whose diversity (or other factors) makes a 20 percent cutoff unrealistic, STS developers can justify and establish an alternate cutoff point and document their rationale. The following are some suggestions that ATC training personnel and career ladder functional managers can apply to make alternative approaches to the STS:

- (1) Lower the 20 percent cutoff rule to a level more appropriate to the features of the career ladder, giving rationale for the change.

(2) Use other OSR data to justify inclusion, such as high TE or TD ratings.

(3) Insert a line entry in the STS for each career ladder function, regardless of percent performing. Then, using this more broadly defined approach by functional area, apply the provisions of AFR 8-13, Section B, paragraph 12 to create an Air Force Job Qualification Standard to describe each distinct job in the AFSC.

Reviewing the proficiency codes at the 3-skill level shows how well STS coding corresponds to first-enlistment airmen responsibilities. Items matched to tasks performed by 30 percent or more of first-enlistment personnel normally should have a task performance or task knowledge proficiency code at the 3-skill level, unless additional factors dictate otherwise. This allows for inclusion of that item into 3-skill level formal resident training. Several STS items with a 3-skill level proficiency code, however, were matched to tasks performed by UNDER 30 percent of first-enlistment personnel. ATCR 52-22 states that tasks should not be formally trained if performed by under 30 percent of first-enlistment personnel (unless additional factors dictate otherwise). Many of these items are in Paragraph 12 - GENERAL ENGINE MAINTENANCE and Paragraph 15. Table 20 includes several examples. Care needs to be taken in reviewing these STS items. Career ladder diversity may have also affected many of the low first-terminer percentages. Subject-matter experts thus need to be attentive in reviewing these items to determine if proficiency codes at the 3-skill level should indeed be removed and thus eliminated from inclusion in the training course.

An additional area of analysis involves examining tasks not matched to any STS element. Unreferenced tasks performed by at least 20 percent of a career ladder group are performed to an extent great enough to be considered for inclusion in the STS. Table 21 lists several examples of tasks not referenced to any STS item. Subject-matter experts should examine these and other unreferenced tasks to consider incorporating their functions in the STS.

D. AFSC 45430A (42630) Plan of Instruction. POI C3ABR45430A, being the most recent 3-skill level course, was examined for this analysis. This course primarily deals with instruction in the repair and maintenance of jet engines. Training includes operating principles, engine change, adjustments, and conditioning of jet engines and systems. Additional training is provided in the removal, disassembly, inspection, repair, assembly, and installation of jet engines. Other information supplied includes ground safety practices, ground support equipment, operation of engine electrical systems, publications, forms, and maintenance concepts.

The course has two distinct Block III-Intermediate Maintenance sections. Section 000 uses the F100 engine as the training platform. Section 001, on the other hand, uses the J57 engine for training. Both sections use these engines for the general engine training and attempt to cover the same material in each training platform.

TABLE 20

AFSC 454X0A STS ITEMS WITH LOW FIRST-ENLISTMENT PERCENT PERFORMING
CODED AT THE 3-SKILL LEVEL

STS REFERENCE/TASKS	TRN EMP*	FIRST- ENLISTMENT (N=1,526)	TSK DIF**
5b USE TAGS	2b b		
E133 ATTACH OR ANNOTATE EQUIPMENT STATUS LABELS OR TAGS, SUCH AS DD FORMS 1574 (SERVICEABLE TAG - MATERIAL)	3.81	27%	3.66
9e USE APPLICABLE AFTO 781 SERIES FORMS	2b B		
E179 INITIATE, ANNOTATE, OR REVIEW AIRCRAFT FLIGHT OR MAINTENANCE RECORDS, SUCH AS AFTO FORMS 781 SERIES	3.64	14%	4.97
12d CORROSION CONTROL PROCEDURES	A B		
K593 APPLY PROTECTIVE COATINGS TO ENGINES OR ENGINE PARTS	2.50	22%	2.37
12e USE SYSTEM SCHEMATICS	2b B		
G306 INTERPRET ENGINE WIRING OR SCHEMATIC DIAGRAMS	4.80	20%	7.30

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33

** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE 20 (CONTINUED)

AFSC 454X0A STS ITEMS WITH LOW FIRST-ENLISTMENT PERCENT PERFORMING
CODED AT THE 3-SKILL LEVEL

STS REFERENCE/TASKS	TRN EMP*	FIRST-ENLISTMENT (N=1,526)	TSK DIF**
12f(1) FURNISH DATA FOR HISTORICAL RECORDS FOR AERONAUTICAL EQUIPMENT	a -		
E121 ANNOTATE AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)		3.32	12% 4.67
12f(2) FURNISH DATA FOR JET ENGINE HISTORICAL RECORDS	a -		
E121 ANNOTATE AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)		3.32	12% 4.67
15a(4) SUPPORT EQUIPMENT	2b B		
E157 COMPLETE AFTO FORMS 244 AND 245 (INDUSTRIAL/SUPPORT EQUIPMENT RECORD)		2.74	11% 3.99
15b(3)(a) REMOVE TURBINE SECTION(S)	2b -		
K664 REMOVE OR INSTALL TURBINE ROTORS		3.23	24% 6.05

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE 20 (CONTINUED)

AFSC 454X0A STS ITEMS WITH LOW FIRST-ENLISTMENT PERCENT PERFORMING
CODED AT THE 3-SKILL LEVEL

STS REFERENCE/TASKS	TRN EMP*	FIRST- ENLISTMENT (N=1,526)	TSK DIF**
15b(3)(d) INSTALL TURBINE SECTION(S)	2b -		
K664 REMOVE OR INSTALL TURBINE ROTORS	3.23	24%	6.05
15b(5)(a) REMOVE COMPRESSOR(S)	2b -		
K651 REMOVE OR INSTALL ENGINE COMPRESSORS	2.94	25%	6.64
15b(5)(d) INSTALL COMPRESSOR(S)	2b -		
K651 REMOVE OR INSTALL ENGINE COMPRESSORS	2.94	25%	6.64
15b(8)(a) REMOVE OIL SEALS	2b -		
K650 REMOVE OR INSTALL ENGINE CARBON SEALS	3.14	28%	6.22
15b(8)(b) INSPECT OIL SEALS	2b -		
K608 CLEAN AND INSPECT ENGINE OIL SEAL	2.93	16%	4.90

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE 20 (CONTINUED)

AFSC 454X0A STS ITEMS WITH LOW FIRST-ENLISTMENT PERCENT PERFORMING
CODED AT THE 3-SKILL LEVEL

STS REFERENCE/TASKS	TRN EMP*	FIRST- ENLISTMENT (N=1,526)	TSK DIF**
15b(8)(d) INSTALL OIL SEALS	2b -		
K650 REMOVE OR INSTALL ENGINE CARBON SEALS		3.14	28%
15b(9)(b) INSPECT FUEL MANIFOLDS AND FUEL NOZZLES		6.22	
2b -			
K616 INSPECT ENGINE FUEL MANIFOLDS		2.58	24%
K617 INSPECT ENGINE FUEL NOZZLES		2.67	24%
			5.39
			5.34
18a(1) REMOVE AIRFRAME MOUNTED ENGINE	2b B		
1577 REMOVE OR INSTALL ENGINES IN AIRCRAFT		3.74	22%
		6.07	
18a(2) INSTALL AIRFRAME MOUNTED ENGINE	2b B		
1577 REMOVE OR INSTALL ENGINES IN AIRCRAFT		3.74	22%
		6.07	

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE 21
EXAMPLES OF TASKS NOT REFERENCED TO AFSC 454X0A (426X2) STS

TASKS	TRN EMP*	FIRST- ENLISTMENT (N=1,526)	5-SKILL LEVEL (N=2,362)	7-SKILL LEVEL (N=1,486)	TSK DIF**
G262 DRAIN FUEL FILTERS	4.08	51%	49%	32%	3.46
G256 CLEAN ENGINE PARTS USING CLEANERS, OTHER THAN ULTRASONIC CLEANERS	4.78	52%	46%	25%	3.72
G476 TRANSFER ENGINES TO TRANSPORTATION DOLLIES	4.20	40%	42%	38%	3.44
E165 DRESS OR RESURFACE SPECIAL TOOLS, SUCH AS BRASS HAMMERS OR CHISELS	3.08	19%	24%	23%	3.20
G248 ASSEMBLE OR DISASSEMBLE OIL COOLER ASSEMBLIES	3.52	29%	27%	15%	5.54
G305 INSTALL ENGINES ON DOLLIES	4.62	18%	20%	23%	4.74
G356 PERFORM ENGINES OR RELATED SYSTEMS TIME COMPLIANCE TECHNICAL ORDER (TCTO) MODIFICATIONS	3.58	34%	37%	31%	5.82
G359 PERFORM GROUND OBSERVER DUTIES	4.59	28%	36%	35%	4.27

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

With the assistance of training specialists from Chanute AFB, this POI was matched to applicable inventory tasks. Computer printouts were then generated to display the results of the matching for use in analyzing the adequacy of the POI. Only performance objectives were reviewed in this analysis, due to their relevance to task statements.

The diversity of the AFSC 426X2 career ladder has also affected this training document. A number of POI objectives were matched to tasks performed by less than 30 percent of airmen in their first 4 years. Most were found in Block III. Additionally, several of the matched tasks had below average TE ratings. The number of POI objectives not meeting the minimum 30 percent members performing criterion is too numerous to discuss in detail. They are, however, included in Appendix B for subject-matter expert consideration.

The above finding raises some issues that need addressing. The Training Decision Logic Table in ATCR 52-22, Attachment 1, recommends those areas performed by under 30 percent of first-termers not be included in formal training. Taken at face value, this would lead to the elimination of much of the 3-skill level course. In the same manner as the STS, however, other factors (such as career ladder diversity and criticality) may lead career ladder managers to decide to retain much of the training.

Nevertheless, training managers, career ladder managers, and subject-matter experts should perform an in-depth review of the entire course to determine which, if any, of the POI objectives should be retained or eliminated. Where retention cannot be supported by OSR data, alternative justification rationale should be documented for future reference.

As with the STS, another part of the POI analysis involves examining unreferenced tasks. These are areas that should be considered for course inclusion due to high percentages of first-termers performing these tasks. The majority deal with general aircraft engine maintenance tasks. Table 22 lists these tasks. Training specialists should review unreferenced tasks performed by over 30 percent of first-job/first-enlistment personnel to determine if they should be included in common resident course training.

AFSC 426X3 Training Issues

A. AFSC 426X3 First-Enlistment Personnel. The 288 individuals in their first-enlistment within AFSC 426X3 account for 29 percent of the sample of turboprop maintenance respondents. Like their AFSC 426X2 counterparts, these airmen perform a very technical job performing many "remove and install" engine component-type tasks. They also, however, perform several general propeller maintenance tasks. This function accounts for 16 percent of their total job time. Fifty percent of AFSC 426X3 first-termers are employed in the Flightline Personnel Job (see Figure 3). This is contrary to AFSC 426X2 first-termers who commonly work in the In-Shop Personnel job. AFSC 426X3 first-termers perform a rather large job, averaging 115 tasks. Some of these are included in Table 23.

TABLE 22

EXAMPLES OF TASKS NOT REFERENCED TO POI C3ABR45430A
WITH 30 PERCENT OR MORE PERFORMING

<u>TASKS</u>	<u>1ST ENL PERCENT PERFORMING (N=1,526)</u>	<u>TRAINING EMPHASIS*</u>	<u>TASK DIFFICULTY**</u>
G262 DRAIN FUEL FILTERS	51%	4.08	3.46
E141 COMPLETE AF FORMS 2005 (ISSUE/TURN IN REQUEST)	40%	4.83	3.58
E182 INVENTORY SPECIAL TOOLS, SUCH AS CONSOLIDATED TOOL KITS (CTK) AND TOOL ROOM CHITS	39%	4.50	3.71
F231 INSPECT ENGINES OR ASSOCIATED EQUIPMENT FOR CORROSION	40%	3.56	4.71
G249 BLEND ENGINE COMPRESSOR BLADES	43%	5.47	5.23
G250 BLEND ENGINE FAN BLADES	44%	5.20	5.04
G256 CLEAN ENGINE PARTS USING CLEANERS, OTHER THAN ULTRASONIC CLEANERS	52%	4.78	3.72
G259 CONNECT OR DISCONNECT TEST EQUIPMENT TO ENGINES	42%	5.06	4.91
G260 DRAIN AND FLUSH ENGINE OIL SYSTEMS	42%	4.96	4.59
G282 INSPECT ENGINES BEFORE OR AFTER OPERATION	43%	4.98	5.54
G354 PERFORM ENGINE LEAK CHECKS	42%	4.50	4.52
G374 PREPARE ENGINE COMPONENTS FOR SHIPMENT	40%	3.68	3.12
G376 PREPARE ENGINES FOR SHIPMENT	43%	4.00	4.07
G456 RIG ENGINE THROTTLE CONTROL SYSTEMS	37%	4.11	6.25
G476 TRANSFER ENGINES TO TRANSPORTATION DOLLIES	40%	4.20	3.44
G245 ADJUST ENGINE SYSTEM COMPONENTS	36%	4.57	5.70
G428 REMOVE OR INSTALL PNEUMATIC STARTER UNITS	30%	3.28	4.52

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

AFSC 426X3 FIRST-ENLISTMENT JOBS

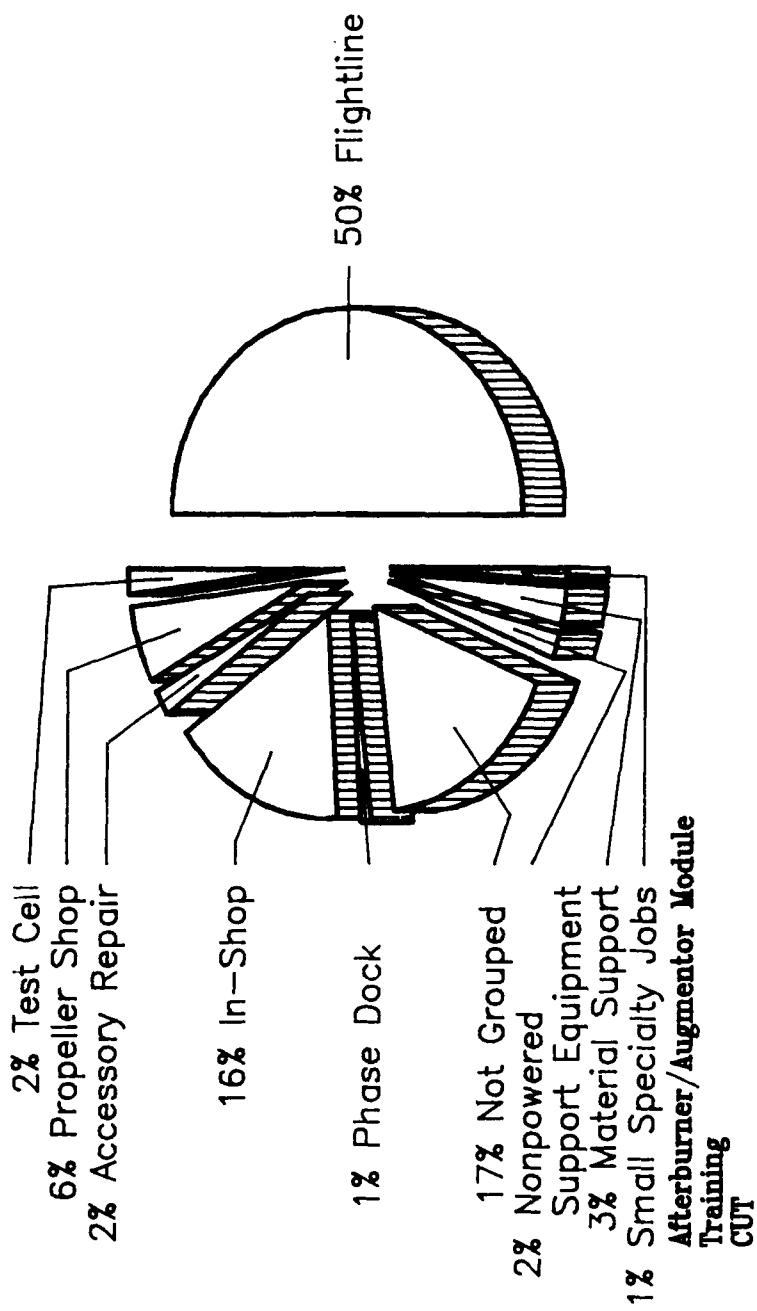


Figure 3

TABLE 23
REPRESENTATIVE TASKS PERFORMED BY FIRST-ENLISTMENT
(1-48 MONTHS TAFMS) AFSC 426X3 PERSONNEL

<u>TASKS</u>	<u>PERCENT PERFORMING (N=288)</u>
G400 REMOVE OR INSTALL ENGINE FUEL SYSTEM COMPONENTS	74
E159 COMPLETE AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	72
G404 REMOVE OR INSTALL ENGINE OIL SYSTEM COMPONENTS	72
G464 SEAL, PLUG, OR CAP LINES OR OPENINGS	70
G468 SERVICE ENGINE OIL SYSTEMS	68
G276 INSPECT ENGINE OIL SYSTEMS	67
G429 REMOVE OR INSTALL PORTIONS OF COWLING, NACELLES, ACCESS DOORS, OR PANELS	67
G426 REMOVE OR INSTALL OIL COOLER ASSEMBLIES	66
G455 RIG ENGINE CONTROL LINKAGES	65
E158 COMPLETE AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	65
G408 REMOVE OR INSTALL ENGINE TAIL PIPES	64
G256 CLEAN ENGINE PARTS USING CLEANERS, OTHER THAN ULTRASONIC CLEANERS	63
G399 REMOVE OR INSTALL ENGINE FUEL MANIFOLDS OR NOZZLES	63
G406 REMOVE OR INSTALL ENGINE PLUMBING	63
G470 SERVICE STARTER UNITS	63
G259 CONNECT OR DISCONNECT TEST EQUIPMENT TO ENGINES	62
G283 INSPECT FUEL FILTERS	62
H524 REMOVE OR INSTALL PROPELLER BRUSH BLOCKS	59
G278 INSPECT ENGINE PLUMBING	58
G438 REMOVE OR INSTALL TEMPERATURE DATUM SYSTEM COMPONENTS	58
H538 REWORK PROPELLER BLADE NICKS, BURRS, OR SCRATCHES	57
G354 PERFORM ENGINE LEAK CHECKS	56
H545 TORQUE PROPELLERS ON ENGINE SHAFT	56
H523 REMOVE OR INSTALL PROPELLER ANTI-ICING AFTERBODIES	54
H521 REMOVE OR INSTALL PITCH LOCK REGULATORS	53

B. Equipment. Similar to the AFSC 426X2 career ladder, AFSC 426X3 personnel employ a wide variety of different tools and equipment and are responsible for several types of engines. Using survey data to identify highly used pieces of equipment and engines can help tailor training requirements to ensure knowledge in this area. Table 24 lists those pieces of equipment maintained by significant percentages of first-term personnel. These should be looked at for technical school hands-on training. Table 25 displays those engines maintained by AFSC 426X3 first-term and DAFSC groups. A complete listing of career ladder equipment usage and engines maintained is included in the Training Extract.

C. AFSC 454X0B (426X3) Specialty Training Standard (STS). The AFSC 426X3 career ladder, also having been affected by Rivet Workforce, has their latest STS identified as AFSC 454X0B. This will be the one reviewed. Like the A-shred STS, the B-shred Specialty Training Standard (dated August 1988) was compared to survey data to ascertain its soundness as a career ladder-wide training document. Sections dealing with managerial and general information areas were not reviewed. In addition to examining how well survey data supported STS items, 3-skill level proficiency codes and possible areas excluded from the STS were also reviewed.

As mentioned above, an STS item is supported by OSR data if the inventory tasks matched to that item are performed by 20 percent or more of TAFMS and/or DAFSC groups. Using this criterion, the AFSC 454X0B STS, like its A-shred counterpart, had several items not supported by survey data. In other words, several performance items were matched to tasks performed by under 20 percent of AFSC 454X0B personnel. Due to the number of items, they have been listed in Appendix B. Many of these items were in Paragraph 13 - MAINTENANCE OF TURBOPROP/SHAFT ENGINES, INCLUDING GAS TURBINE ENGINES with several referring to remove, install, and inspect items.

This lack of support could also have resulted from the diversity of jobs held by AFSC 426X3 airmen. If such is indeed the case, an alternative method, as explained in the AFSC 454X0A STS analysis, is appropriate. An STS is a career ladder-wide document, and if a specific function is being performed in the field, it should be included in its STS, regardless of the percentage performing the function. One needs to remember, however, that the data collected represent the tasks actually being performed by turboprop/shaft mechanics. Thus, if few individuals are performing a certain function, and it is not deemed as a separate function of the career ladder, serious consideration needs to be given to determining its future in the STS. Each low-performing STS item needs to be viewed with a critical eye from training specialists and career ladder managers to ensure that the STS is truly the best place to document that particular function. It is stressed that if an alternative route is traveled, proper justification and documentation be included for future reference.

The AFSC 454X0B STS has a couple of issues dealing with 3-skill level proficiency codes that need addressing. Three-skill level STS proficiency codes were reviewed to ensure that items with high percentages of first-enlistment personnel performing were coded, thus allowing for structured training. Examination of the STS revealed many items matched to tasks

TABLE 24

EQUIPMENT/TOOLS USED BY 20 PERCENT OR MORE
OF AFSC 426X3 FIRST-ENLISTMENT PERSONNEL

<u>EQUIPMENT/TOOLS</u>	<u>PERCENT PERFORMING</u>
TORQUE WRENCH	86
ENGINE REMOVAL, INSTALLATION, AND TRANSPORTATION EQUIPMENT	70
THICKNESS GAUGE	64
SWEENEY WRENCH	61
FLEX BOROSCOPE KIT	57
ELECTRICAL TEMPERATURE DATUM CONTROL TEST SET	50
FORKLIFT	49
MAINTENANCE PLATFORM/STAND	48
VOLT-OHM-MULTIMETER (VOM)	48
A-FRAME HOIST	47
DEPTH GAUGE	47
THERMOCOUPLE RESISTANCE TESTER	44
TUG	40
BOBTAIL JEEP	39
THROTTLE RIG KIT	39
MA-1A GAS TURBINE	37
DIRECT PRESSURE GAUGE	36
HOBART DIESEL GENERATOR	35
PSM-6 OHMMETER	35
THERMOCOUPLE HIGH CURRENT TESTER	35
ELECTRICAL COMPONENTS CHECKOUT TEST SET	34
ELECTRONIC TEMPERATURE DATUM TESTER	32
GTC/APU ENGINE ANALYZER	32
MANUAL OVERHEAD HOIST	31
PORTABLE THERMOCOUPLE TESTER	31
RPM AND PHASE ANGLE TEST SET	31
SYNCHROPHASER SYSTEM TEST SET	31
RIGID BOROSCOPE KIT	29
PSM-37 OHMMETER	28
POWERED OVERHEAD HOIST	26
MICROMETER CALIPER	26
CALCULATOR	23
MD-3 GENERATOR	23
NF-2 LIGHT	22
MICROMETER VERNIER SCALE	21
VOLTMETER	21

TABLE 25

AFSC 426X3 ENGINES MAINTAINED
(PERCENT MEMBERS PERFORMING)

<u>TYPE OF ENGINE</u>	<u>FIRST-ENLISTMENT PERSONNEL (N=288)</u>	<u>5-SKILL LEVEL (N=518)</u>	<u>7-SKILL LEVEL (N=428)</u>
T56 (C-130)	75	75	68
T58 (HH-3E)	8	10	13
T64 (HH-53)	8	12	14
T76 (OV-10)	8	8	10
T400 (HH-1N)	4	6	9

performed by 30 percent or more of first-enlistment personnel with no 3-skill level proficiency code that would allow for structured training at that level. These are listed in Table 26. The majority of these items are in Paragraph 18 - DIAGNOSE CAUSES OF MALFUNCTIONS. These areas, performed by high percentages of first-termers (and with high task factor ratings), and not taught in the 3-skill level course, need to be considered for addition to the entry-level course.

The other proficiency code area examined were those items coded at the 3-skill level (indicating formal training) matched to tasks performed by under 30 percent of first-job/first-enlistment personnel (see Table 27). Due to the low numbers of junior personnel making use of these skills and knowledges, training specialists need to consider dashing these items at the 3-skill level, resulting in removal from the course.

A final area of analysis involves examining tasks not matched to any STS item. Tasks performed by 20 percent or more of a major group (i.e., TAFMS or DAFSC group), but unreferenced to the STS, should be considered for STS inclusion. Several tasks deal with performing general engine and propeller maintenance tasks. Examples of these and other unreferenced tasks are listed in Table 28. Subject-matter experts should review these tasks to see if any areas need adding on to the STS.

D. AFSC 454X0B (426X3) Plan of Instruction. The latest DAFSC 42633 POI is C3ABR45430B, and will be the one reviewed in this analysis. This turboprop course shares many of the same topics as the jet engine course. Essentially, the course provides instruction on the disassembly, inspection, repair and assembly of turboprop engines. Propeller maintenance is also covered here, with training being given in the operation, removal, disassembly, inspection, repair, assembly, test and installation of hydraulically operated propellers, controls and assemblies. Other topics covered include ground safety practices, ground support equipment, electrical fundamentals, publications, forms, and maintenance concepts.

The majority of POI objectives matched to OSR tasks was performed by 30 percent or more of first-job/first-enlistment personnel, signifying generally good support for the POI. Several objectives, however, were matched to tasks done by under 30 percent of these criterion groups. The publication of an OSR is an excellent opportunity for training specialists to review these identified unsupported objectives and consider their future in the training document.

A complete listing of these unsupported objectives is found in Appendix B. As can be seen, the majority of these objectives is found in Block IV - ENGINE REPAIR. A number of these deal with specific engine component parts worked on by relatively few individuals. Subject-matter experts need to examine all the unsupported POI objectives to determine if they should indeed be removed from the course so as to make it more representative of the tasks performed by airmen first entering the career ladder.

TABLE 26

AFSC 454X0B STS ITEMS WITH HIGH FIRST-ENLISTMENT PERCENT PERFORMING
BUT NOT CODED AT THE 3-SKILL LEVEL

STS REFERENCE/TASKS	TRN EMP*	FIRST-ENLISTMENT (N=288)	TSK DIF**
12b ACCOMPLISH TIME COMPLIANCE TECHNICAL ORDER DIRECTIVES	- B		
G356 PERFORM ENGINES OR RELATED SYSTEMS TCTO MODIFICATIONS	2.30	36%	5.51
16f ADJUST ENGINE SYSTEM UNITS	- b		
G245 ADJUST ENGINE SYSTEM COMPONENTS	4.68	58%	5.33
16i COMPUTE ENGINE TORQUE	- b		
G258 COMPUTE ENGINE TORQUE OR PERFORMANCE	4.19	35%	5.55
17d PERFORM PROPELLER ADJUSTMENTS	- B		
J579 ADJUST NEGATIVE TORQUE SYSTEM (NTS) COMPONENTS	4.59	44%	4.15
18a(1) DIAGNOSE CAUSES OF MALFUNCTIONS - STARTER	- b		
G331 ISOLATE MALFUNCTIONS WITHIN ENGINE STARTER SYSTEMS	4.27	42%	5.05

* Training Emphasis has an average of 1.59 and a standard deviation of 1.37
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE 26 (CONTINUED)

AFSC 454X0B STS ITEMS WITH HIGH FIRST-ENLISTMENT PERCENT PERFORMING
BUT NOT CODED AT THE 3-SKILL LEVEL

STS REFERENCE/TASKS	TRN <u>EMP*</u>	FIRST- ENLISTMENT (N=288)	TSK <u>DIF**</u>
18a(2) DIAGNOSE CAUSES OF MALFUNCTIONS - IGNITION	- b		
G337 ISOLATE MALFUNCTIONS WITHIN IGNITION SYSTEMS	3.70	40%	5.72
18a(3) DIAGNOSE CAUSES OF MALFUNCTIONS - OIL	- b		
G327 ISOLATE MALFUNCTIONS WITHIN ENGINE OIL SYSTEMS	5.03	48%	6.08
18a(4) DIAGNOSE CAUSES OF MALFUNCTIONS - FUEL	- b		
G322 ISOLATE MALFUNCTIONS WITHIN ENGINE FUEL SYSTEMS	4.14	44%	6.45
18a(5) DIAGNOSE CAUSES OF MALFUNCTIONS - BLEED AIR	- b		
G318 ISOLATE MALFUNCTIONS WITHIN ENGINE BLEED AIR SYSTEMS	4.08	42%	5.66
18a(6) DIAGNOSE CAUSES OF MALFUNCTIONS - ANTI-ICING	- b		
G317 ISOLATE MALFUNCTIONS WITHIN ENGINE ANTI-ICING SYSTEMS	3.95	39%	5.55

* Training Emphasis has an average of 1.59 and a standard deviation of 1.37
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE 26 (CONTINUED)

AFSC 454X0B STS ITEMS WITH HIGH FIRST-ENLISTMENT PERCENT PERFORMING
BUT NOT CODED AT THE 3-SKILL LEVEL

STS REFERENCE/TASKS	TRN EMP*	FIRST- ENLISTMENT (N=288)	TSK DIF**
18a(9) DIAGNOSE CAUSES OF MALFUNCTIONS - TEMPERATURE DATUM SYSTEM - b			
G341 ISOLATE MALFUNCTIONS WITHIN TEMPERATURE DATUM SYSTEMS	5.05	40%	7.00
18a(10) DIAGNOSE CAUSES OF MALFUNCTIONS - MECHANICAL CONTROL - b			
G320 ISOLATE MALFUNCTIONS WITHIN ENGINE CONTROL LINKAGE SYSTEMS	4.78	47%	6.21
18a(11) DIAGNOSE CAUSES OF MALFUNCTIONS - NEGATIVE TORQUE SIGNAL - b			
G326 ISOLATE MALFUNCTIONS WITHIN ENGINE NEGATIVE TORQUE SYSTEMS	4.65	41%	6.03
18b(1) DIAGNOSE CAUSES OF MALFUNCTIONS - ANTI-ICING - b			
H499 ISOLATE MALFUNCTIONS WITHIN PROPELLER ANTI-ICING SYSTEMS	3.76	35%	5.90
18b(2) DIAGNOSE CAUSES OF MALFUNCTIONS - DEICING - b			
H500 ISOLATE MALFUNCTIONS WITHIN PROPELLER DEICING SYSTEMS	3.78	37%	5.86

* Training Emphasis has an average of 1.59 and a standard deviation of 1.37
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE 26 (CONTINUED)

AFSC 454X0B STS ITEMS WITH HIGH FIRST-ENLISTMENT PERCENT PERFORMING
BUT NOT CODED AT THE 3-SKILL LEVEL

STS REFERENCE/TASKS	TRN EMP*	FIRST- ENLISTMENT (N=288)	TSK DIF**
18b(3) DIAGNOSE CAUSES OF MALFUNCTIONS - HYDRAULIC OIL	- b		
G5C1 ISOLATE MALFUNCTIONS WITHIN PROPELLER HYDRAULIC OIL SYSTEMS	4.03	30%	6.44
18b(5) DIAGNOSE CAUSES OF MALFUNCTIONS - NEGATIVE TORQUE SIGNAL	- b		
G341 ISOLATE MALFUNCTIONS WITHIN PROPELLER NEGATIVE TORQUE SIGNAL	3.68	39%	5.62
18b(6) DIAGNOSE CAUSES OF MALFUNCTIONS - SYNCHROPHASER SYSTEM	- b		
H5C3 ISOLATE MALFUNCTIONS WITHIN PROPELLER SYNCHROPHASER SYSTEM	4.22	34%	7.76

* Training Emphasis has an average of 1.59 and a standard deviation of 1.37
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE 27

AFSC 454XOB STS ITEMS WITH LOW FIRST-ENLISTMENT PERCENT PERFORMING
CODED AT THE 3-SKILL LEVEL

STS REFERENCE/TASKS	TRN EMP*		FIRST- ENLISTMENT (N=288)		TSK DIF**
	A	B	29%	3.94	
5c PROPERTY ACCOUNTABILITY AND RESPONSIBILITY					
E181 INVENTORY EQUIPMENT OR SUPPLIES					
9e USE APPLICABLE AFTO 781 SERIES FORMS	1a	b			
E179 INITIATE, ANNOTATE, OR REVIEW AIRCRAFT FLIGHT OR MAINTENANCE RECORDS, SUCH AS AFTO FORMS 781 SERIES			2.97	24%	4.64
12d PERFORM SCHEDULED INSPECTIONS	2b	b			
G352 PERFORM AIRCRAFT DASH-SIX SERIES INSPECTIONS			3.76	29%	4.95
12e OIL ANALYSIS PROGRAM	A	B			
G472 TAKE JOINT OIL ANALYSIS SAMPLES			1.78	18%	2.21

* Training Emphasis has an average of 1.59 and a standard deviation of 1.37
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE 27 (CONTINUED)

AFSC 454XOB STS ITEMS WITH LOW FIRST-ENLISTMENT PERCENT PERFORMING
CODED AT THE 3-SKILL LEVEL

STS REFERENCE/TASKS		TRN EMP*	FIRST- ENLISTMENT (N=288)	TSK DIF**
15a(1) REMOVE ENGINES IN SHIPPING CONTAINERS	b b			
G405 REMOVE OR INSTALL ENGINE OR ENGINE MODULE COMPONENTS IN SHIPPING CONTAINERS		2.30	26%	3.95
16a(2) INSTALL ENGINES IN SHIPPING CONTAINERS	b b			
G405 REMOVE OR INSTALL ENGINE OR ENGINE MODULE COMPONENTS IN SHIPPING CONTAINERS		2.30	26%	3.95
20c USE ELECTRICAL METERS	2b b			
G308 ISOLATE ELECTRICAL OR ELECTRONIC MALFUNCTIONS		3.16	26%	8.08
20e ADJUST ELECTRICAL SWITCHES	a b			
G244 ADJUST ELECTRICAL SWITCHES		3.05	18%	5.10
22e TEST PROPELLER CONTROL SYSTEM COMPONENTS	2b/b b			
H497 ISOLATE MALFUNCTIONS WITHIN FEATHER VALVE SWITCHES		3.41	20%	6.43

* Training Emphasis has an average of 1.59 and a standard deviation of 1.37
 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE 28

EXAMPLES OF TASKS NOT REFERENCED TO AFSC 454X0B (426X3) STS

TASKS	TRN EMP*	FIRST- ENLISTMENT (N=288)		7-SKILL LEVEL (N=425)		TSK DIF**
		5-SKILL LEVEL (N=518)	7-SKILL LEVEL (N=425)			
G260 DRAIN AND FLUSH ENGINE OIL SYSTEMS	4.08	50%	53%	47%	3.76	3.15
G262 DRAIN FUEL FILTERS	3.14	54%	53%	37%	5.61	5.61
G271 INSPECT ENGINE CONTROLS	4.32	52%	59%	61%	3.94	3.94
G276 INSPECT ENGINE OIL FILTERS	3.35	67%	71%	61%	4.02	4.02
G283 INSPECT FUEL FILTERS	3.95	62%	66%	56%	3.25	3.25
G408 REMOVE OR INSTALL ENGINE TAIL PIPES	4.46	64%	65%	44%	3.75	3.75
G425 REMOVE OR INSTALL NTS BRACKETS	4.32	53%	56%	53%	5.09	5.09
H494 INSPECT PROPELLERS OR RELATED COMPONENTS	4.41	51%	57%	47%	4.28	4.28
H495 INSPECT SPINNER CONES	3.97	50%	52%	52%	38%	4.53
G428 REMOVE OR INSTALL PNEUMATIC STARTER UNITS	2.95	51%	52%	47%	3.92	3.92
G288 INSPECT MAGNETIC ENGINE CHIP DETECTORS	2.84	47%	52%	44%	3.56	3.56
G423 REMOVE OR INSTALL MAGNETIC ENGINE CHIP DETECTORS	2.19	43%	49%	44%	5.3%	5.3%
G468 SERVICE ENGINE OIL SYSTEMS	3.95	68%	68%	45%	2.72	2.72
G470 SERVICE STARTER UNITS	3.86	63%	60%	41%	2.74	2.74
H492 DRAIN OIL FROM PROPELLER COMPONENTS	3.49	50%	50%	50%	3.99	3.99
G284 INSPECT GARLOCK (SHAFT) SEALS	3.35	48%	51%	50%	5.32	5.32
G291 INSPECT QUICK ENGINE CHANGE (QEC) KITS	3.30	41%	44%	41%	4.2%	4.2%
G330 ISOLATE MALFUNCTIONS WITHIN ENGINE REDUCTION GEARBOX SYSTEMS	4.16	30%	39%	42%	5.90	5.90
G359 PERFORM GROUND OBSERVER DUTIES	3.46	33%	39%	30%	3.53	3.53
G368 PERFORM OPERATIONAL CHECKS OF TIT SYSTEMS	4.11	31%	41%	41%	5.22	5.22
H513 REMOVE OR INSTALL ENGINE NTS LINKAGES	3.70	32%	37%	35%	4.16	4.16
H517 REMOVE OR INSTALL LOW PITCH STOP LEVER ASSEMBLIES	4.22	34%	40%	37%	4.78	4.78
T926 CONNECT OR DISCONNECT EXTERNAL AIRCRAFT POWER	3.38	41%	44%	42%	3.75	3.75
G311 ISOLATE MALFUNCTIONS CONTRIBUTING TO ENGINE STALL OR FLAMEOUT	3.57	26%	35%	36%	7.11	7.11
G394 REMOVE OR INSTALL ENGINE BLEED VALVE SEALS	2.97	29%	32%	28%	4.26	4.26
H490 CLEAN PROPELLER SYSTEM OIL FILTERS	2.97	27%	28%	19%	3.49	3.49

* Training Emphasis has an average of 1.59 and a standard deviation of 1.37

** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

As with the STS, another part of the POI analysis involves examining unreferenced tasks. Based on high percentages of first-termers performing them, several tasks should be considered for inclusion in the POI. Many of these tasks deal with performing general aircraft engine (Duty G) and general propeller (Duty H) functions. Table 29 lists examples of these tasks. Training specialists should review these and other unreferenced tasks performed by over 30 percent of first-enlistment personnel to ascertain if they should be included in common resident course training. A complete listing is contained in the Training Extract, which has been forwarded to the technical training school.

JOB SATISFACTION ANALYSIS

An examination of the job satisfaction indicators for each experience group provides some understanding of factors which may affect the job performance of AFSC 426X2/X3 personnel. Job satisfaction indicators for AFSC 426X2 and 426X3 TAFMS groups are shown in Table 30. These are displayed alongside a comparative sample of similar career ladders surveyed in 1988. This gives a relative measure of how the job satisfaction of personnel in AFSC 426X2/X3 compares with other similar Air Force career ladders. Additionally, job satisfaction indicators from the previous survey were examined to seek out any changes in job satisfaction that may have occurred over time. These data are presented in Tables 31 and 32 for each career ladder. Finally, job satisfaction across specialty jobs was reviewed to determine how overall job satisfaction may be influenced by the specific job performed.

Five attitude questions covering job interest, perceived utilization of talents, perceived utilization of training, sense of accomplishment from the job, and reenlistment intentions provide indications of job satisfaction. Both specialties had high positive responses for all the attitude questions (see Table 30). The majority of indicators had positive responses of 75-85 percent in each career ladder. As shown in Table 30, this compares very favorably to a comparative sample of similar career ladders. These two propulsion specialties had slightly higher job satisfaction indicators in all areas.

Comparing the 1982 job satisfaction data to the present data shows little change over time for AFSC 426X2 TAFMS groups (see Table 31). As Table 32 shows, however, there is some noticeable change in AFSC 426X3 job satisfaction data over time. Across all questions, job satisfaction indicators have increased in this specialty over the last 7 years. This was especially evident in the first-and second-term groups.

Job satisfaction indicators for specialty jobs were also examined to identify jobs having high or low job satisfaction (see Table 33). Most jobs had very high job satisfaction indicators, thus keeping in line with the overall high career ladder indicators. A few jobs were identified, however, where many personnel indicated finding their job less than interesting. These jobs

TABLE 29

EXAMPLES OF TASKS NOT REFERENCED TO POI C3ABR45430B
WITH 30 PERCENT OR MORE PERFORMING

<u>TASKS</u>	<u>1ST ENL PERCENT PERFORMING (N=288)</u>	<u>TRAINING EMPHASIS*</u>	<u>TASK DIFFICULTY**</u>
G260 DRAIN AND FLUSH ENGINE OIL SYSTEMS	50%	4.08	3.76
G262 DRAIN FUEL FILTERS	54%	3.14	3.15
G354 PERFORM ENGINE LEAK CHECKS	56%	4.51	4.17
G425 REMOVE OR INSTALL NTS BRACKETS	53%	4.32	3.75
G426 REMOVE OR INSTALL OIL COOLER ASSEMBLIES	66%	4.22	4.60
G437 REMOVE OR INSTALL TACHOMETER GENERATORS	51%	3.16	3.24
H526 REMOVE OR INSTALL PROPELLER LINKAGE ROD ENDS	50%	4.24	4.06
G288 INSPECT MAGNETIC ENGINE CHIP DETECTORS	47%	2.84	3.92
G356 PERFORM ENGINES OR RELATED SYSTEMS TCTO MODIFICATIONS	36%	2.30	5.51
G423 REMOVE OR INSTALL MAGNETIC ENGINE CHIP DETECTORS	43%	2.19	3.56
G435 REMOVE OR INSTALL STARTER SYSTEM COMPONENTS, OTHER THAN STARTER ASSEMBLIES	32%	2.95	3.96
G468 SERVICE ENGINE OIL SYSTEMS	68%	3.95	2.72
G470 SERVICE STARTER UNITS	63%	3.86	2.93
H492 DRAIN OIL FROM PROPELLER COMPONENTS	50%	3.49	2.74
G318 ISOLATE MALFUNCTIONS WITHIN ENGINE BLEED AIR SYSTEMS	42%	4.08	5.66
G320 ISOLATE MALFUNCTIONS WITHIN ENGINE CONTROL LINKAGE SYSTEMS	47%	4.78	6.21
G322 ISOLATE MALFUNCTIONS WITHIN ENGINE FUEL SYSTEMS	44%	4.14	6.45
G331 ISOLATE MALFUNCTIONS WITHIN ENGINE STARTER SYSTEMS	42%	4.27	5.05
G358 PERFORM FLEX BOROSCOPE INSPECTIONS OF ENGINES	47%	4.24	5.79
G416 REMOVE OR INSTALL GARLOCK (SHAFT) SEALS	49%	3.27	4.31
H482 ADJUST INDEX LEVERS ON VALVE HOUSING COVERS	35%	4.30	4.97
H483 ADJUST MECHANICAL REVOLUTIONS PER MINUTE (RPM)	44%	4.27	3.40
H489 ADJUST REVERSE TORQUE	49%	4.27	3.76
H499 ISOLATE MALFUNCTIONS WITHIN PROPELLER ANTI-ICING SYSTEMS	35%	3.76	5.90
H500 ISOLATE MALFUNCTIONS WITHIN PROPELLER DEICING SYSTEMS	37%	3.78	5.86

* Training Emphasis has an average of 1.59 and a standard deviation of 1.37
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE 30
COMPARISON OF AFSC 426X2/X3 TAFMS GROUP JOB SATISFACTION INDICATORS
(PERCENT MEMBERS RESPONDING)

	1-48 MOS TAFMS			49-96 MOS TAFMS			97+ MOS TAFMS		
	AFSC 426X2 (N=1,526)	AFSC 426X3 (N=288)	1988 COMP SAMPLE (N=6,152)	AFSC 426X2 (N=1,082)	AFSC 426X3 (N=311)	1988 COMP SAMPLE (N=4,464)	AFSC 426X2 (N=1,598)	AFSC 426X3 (N=411)	1988 COMP SAMPLE (N=6,451)
<u>EXPRESSED JOB INTEREST:</u>									
INTERESTING	76	75	73	76	75	71	78	76	73
SO-SO	15	17	17	16	18	16	14	15	16
DULL	8	8	10	7	5	12	7	7	10
<u>PERCEIVED USE OF TALENTS:</u>									
FAIRLY WELL TO PERFECTLY	85	85	80	87	90	78	85	88	80
LITTLE OR NOT AT ALL	14	15	19	13	10	22	14	12	20
<u>PERCEIVED USE OF TRAINING:</u>									
FAIRLY WELL TO PERFECTLY	87	86	82	84	85	74	84	87	73
LITTLE OR NOT AT ALL	12	14	18	15	15	26	16	13	26

* Denotes less than 1 percent

** Comparative Sample is composed of all Mission Equipment Maintenance nonlateral career ladders surveyed in 1988 (includes AFSCs 302X0, 304X0, 304X1, 304X5, 306X0, 306X3, 321X0, 328X0, 328X1, 411X0B, 411X0C, 427X1, 431X1, 431X2, 431X3, 431X4, 464X0)

NOTE: Columns may not add to 100 percent due to nonresponse and rounding

TABLE 30 (CONTINUED)

COMPARISON OF AFSC 426X2/X3 TAFMS GROUP JOB SATISFACTION INDICATORS
(PERCENT MEMBERS RESPONDING)

	1-48 MOS TAFMS			49-96 MOS TAFMS			97+ MOS TAFMS		
	AFSC 426X2 (N=1,526)	AFSC 426X3 (N=288)	1988 COMP SAMPLE (N=6,152)	AFSC 426X2 (N=1,082)	AFSC 426X3 (N=311)	1988 COMP SAMPLE (N=4,464)	AFSC 426X2 (N=1,598)	AFSC 426X3 (N=411)	1988 COMP SAMPLE (N=6,451)
<u>SENSE OF ACCOMPLISHMENT FROM WORK:</u>									
SATISFIED	79	79	72	75	82	66	75	76	67
NEUTRAL	10	9	12	12	10	12	11	11	11
DISSATISFIED	10	11	16	12	7	21	13	13	22
<u>REENLISTMENT INTENTIONS:</u>									
WILL/PROBABLY WILL REENLIST	60	69	59	73	76	69	74	81	74
WILL NOT/PROBABLY WILL NOT REENLIST	39	30	40	27	22	30	9	8	11
WILL RETIRE	*	*	*	*	*	*	16	11	14

* Denotes less than 1 percent

** Comparative Sample is composed of all Mission Equipment Maintenance nonlateral career ladders surveyed in 1988 (includes AFSCs 302X0, 304X0, 304X1, 304X5, 306X0, 306X3, 321X0, 328X0, 328X1, 411X0B, 411X0C, 427X1, 431X1, 431X2, 431X3, 431X4, 464X0)

NOTE: Columns may not add to 100 percent due to nonresponse and rounding

TABLE 31

AFSC 426X2 CURRENT AND PREVIOUS JOB SATISFACTION INDICATORS
(PERCENT MEMBERS RESPONDING)

	1-48 MOS TAFMS			49-96 MOS TAFMS			97+ MOS TAFMS		
	1989 (N=1,526)	1982 (N=1,359)	(N=1,082)	1989 (N=413)	1982 (N=1,598)	(N=835)	1988 (N=1,598)	1982 (N=835)	
<u>EXPRESSED JOB INTEREST:</u>									
INTERESTING	76	74		76	76		78	79	
SO-SO	15	16		16	16		14	13	
DULL	8	10		7	7		7	7	
<u>PERCEIVED USE OF TALENTS:</u>									
FAIRLY WELL TO PERFECTLY									
LITTLE OR NOT AT ALL	85	81	19	87	84	16	85	87	
14	14	19		13	16		14	13	
<u>PERCEIVED USE OF TRAINING:</u>									
FAIRLY WELL TO PERFECTLY									
LITTLE OR NOT AT ALL	87	81	19	84	84	16	84	85	
12	12	19		15	16		16	15	
<u>SENSE OF ACCOMPLISHMENT FROM WORK:</u>									
SATISFIED	79	72		75	74		75	77	
NEUTRAL	10	12		12	11		11	9	
DISSATISFIED	10	16		12	11		14	13	
<u>REENLISTMENT INTENTIONS:</u>									
WILL/PROBABLY WILL REENLIST	60	43		73	68		74	74	
WILL NOT/PROBABLY WILL NOT REENLIST	39	56	*	27	31	*	9	9	
WILL RETIRE	*						16	16	

* Denotes less than 1 percent

NOTE: Columns may not add to 100 percent due to nonresponse and rounding

TABLE 32

AFSC 426X3 CURRENT AND PREVIOUS JOB SATISFACTION INDICATORS
(PERCENT MEMBERS RESPONDING)

	1-48 MOS TAFMS		49-96 MOS TAFMS		97+ MOS TAFMS	
	1989 (N=288)	1982 (N=482)	1989 (N=311)	1982 (N=139)	1988 (N=411)	1982 (N=225)
<u>EXPRESSED JOB INTEREST:</u>						
INTERESTING	75	69	75	64	76	72
SO-SO	17	19	18	21	15	20
DULL	8	11	5	15	7	8
<u>PERCEIVED USE OF TALENTS:</u>						
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	85 15	78 22	90 10	77 23	88 12	82 18
<u>PERCEIVED USE OF TRAINING:</u>						
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	86 14	74 25	85 15	76 23	87 13	76 23
<u>SENSE OF ACCOMPLISHMENT FROM WORK:</u>						
SATISFIED	79	70	82	67	76	70
NEUTRAL	9	12	10	12	11	8
DISSATISFIED	11	17	7	22	13	21
<u>REENLISTMENT INTENTIONS:</u>						
WILL/PROBABLY WILL REENLIST	69	44	76	66	81	74
WILL NOT/PROBABLY WILL NOT REENLIST	30	5	22	32	8	9
WILL RETIRE	*		*	1	11	17

* Denotes less than 1 percent

NOTE: Columns may not add to 100 percent due to nonresponse and rounding

TABLE 33

JOB SATISFACTION INDICATORS BY SPECIALTY GROUP
(PERCENT MEMBERS RESPONDING)

	CUT PERSONNEL	IN-SHOP PERSONNEL	PHASE DOCK PERSONNEL	TEST CELL PERSONNEL	FLIGHTLINE PERSONNEL
<u>EXPRESSED JOB INTEREST:</u>					
INTERESTING	70	78	75	90	81
SO-SO	20	15	17	7	13
DULL	10	7	8	2	5
<u>PERCEIVED USE OF TALENTS:</u>					
FAIRLY WELL TO PERFECTLY	60	89	86	94	90
LITTLE OR NOT AT ALL	40	10	14	6	10
<u>PERCEIVED USE OF TRAINING:</u>					
FAIRLY WELL TO PERFECTLY	70	92	86	91	91
LITTLE OR NOT AT ALL	30	7	14	8	8
<u>SENSE OF ACCOMPLISHMENT FROM WORK:</u>					
SATISFIED	80	79	78	84	81
NEUTRAL	0	10	10	2	8
DISSATISFIED	20	9	12	6	10
<u>REENLISTMENT INTENTIONS:</u>					
WILL/PROBABLY WILL REENLIST	80	66	66	76	75
WILL NOT/PROBABLY WILL NOT REENLIST	10	31	30	19	20
WILL RETIRE	0	2	2	5	4

* Denotes less than 1 percent

NOTE: Columns may not add to 100 percent due to nonresponse and rounding

TABLE 33 (CONTINUED)

JOB SATISFACTION INDICATORS BY SPECIALTY GROUP
(PERCENT MEMBERS RESPONDING)

	BALANCE SHOP PERSONNEL	AFTERBURNER/ AUGMENTOR MODULE PERSONNEL	ACCESSORY REPAIR PERSONNEL	QUALITY ASSURANCE PERSONNEL	SUPERVISORY PERSONNEL	TRAINING PERSONNEL
<u>EXPRESSED JOB INTEREST:</u>						
INTERESTING	89	63	57	89	81	70
SO-SO	11	24	25	7	13	13
DULL	0	12	18	4	5	16
<u>PERCEIVED USE OF TALENTS:</u>						
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	84 16	81 18	75 25	93 6	88 12	80 19
<u>PERCEIVED USE OF TRAINING:</u>						
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	84 16	85 13	68 31	94 5	84 16	79 20
<u>SENSE OF ACCOMPLISHMENT FROM WORK:</u>						
SATISFIED	84	73	68	81	79	74
NEUTRAL	16	16	14	7	8	8
DISSATISFIED	0	9	17	10	12	19
<u>REENLISTMENT INTENTIONS:</u>						
WILL/PROBABLY WILL REENLIST	68	60	54	76	64	76
WILL NOT/PROBABLY WILL NOT REENLIST	32	39	40	9	11	16
WILL RETIRE	0	0	4	14	25	6

* Denotes less than 1 percent

NOTE: Columns may not add to 100 percent due to nonresponse and rounding

TABLE 33 (CONTINUED)

JOB SATISFACTION INDICATORS BY SPECIALTY GROUP
(PERCENT MEMBERS RESPONDING)

	<u>NONPOWERED SUPPORT EQUIPMENT PERSONNEL</u>	<u>MATERIAL SUPPORT PERSONNEL</u>	<u>PROPELLER SHOP PERSONNEL</u>	<u>SMALL GAS TURBINE PERSONNEL</u>	<u>TECHNICAL ORDER PERSONNEL</u>	<u>HIGHER HEADQUARTERS PERSONNEL</u>
<u>EXPRESSED JOB INTEREST:</u>						
INTERESTING	48	53	73	75	44	88
SO-SO	31	28	28	13	50	13
DULL	21	18	0	13	6	0
<u>PERCEIVED USE OF TALENTS:</u>						
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	64	64	85	75	78	96
	36	36	15	25	22	4
<u>PERCEIVED USE OF TRAINING:</u>						
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	57	52	93	88	78	92
	43	48	5	13	22	8
<u>SENSE OF ACCOMPLISHMENT FROM WORK:</u>						
SATISFIED	58	55	80	56	67	83
NEUTRAL	20	20	5	13	17	4
DISSATISFIED	21	25	13	31	17	13
<u>REENLISTMENT INTENTIONS:</u>						
WILL/PROBABLY WILL REENLIST	65	69	73	63	67	42
WILL NOT/PROBABLY WILL NOT REENLIST	28	24	18	31	11	25
WILL RETIRE	6	6	10	6	22	29

* Denotes less than 1 percent

NOTE: Columns may not add to 100 percent due to nonresponse and rounding

TABLE 33 (CONTINUED)

JOB SATISFACTION INDICATORS BY SPECIALTY GROUP
(PERCENT MEMBERS RESPONDING)

	ENGINE MONITORING PERSONNEL	ENGINE MANAGEMENT PERSONNEL
<u>EXPRESSED JOB INTEREST:</u>		
INTERESTING	85	81
SO-SO	8	8
DULL	8	8
<u>PERCEIVED USE OF TALENTS:</u>		
FAIRLY WELL TO PERFECTLY	96	83
LITTLE OR NOT AT ALL	4	15
<u>PERCEIVED USE OF TRAINING:</u>		
FAIRLY WELL TO PERFECTLY	81	71
LITTLE OR NOT AT ALL	19	27
<u>SENSE OF ACCOMPLISHMENT FROM WORK:</u>		
SATISFIED	77	73
NEUTRAL	15	10
DISSATISFIED	8	14
<u>REENLISTMENT INTENTIONS:</u>		
WILL/PROBABLY WILL REENLIST	85	73
WILL NOT/PROBABLY WILL NOT REENLIST	12	14
WILL RETIRE	0	12

* Denotes less than 1 percent

NOTE: Columns may not add to 100 percent due to nonresponse and rounding

included TO, Nonpowered Support Equipment, Material Support, and Accessory Personnel. Several of their other responses were also lower than most other career ladder jobs.

IMPLICATIONS

As explained in the INTRODUCTION, this survey was requested to update the tasks performed in the career ladders since the previous OSR (1982); and to identify what engine monitoring and engine management tasks are being done. Due to the recent Rivet Workforce initiatives, the two career ladders were converted into one ladder with two shreds. Since the survey was administered under the former AFSC designators, however, the findings have been reported under the prior classification scheme.

Comparing present and previous OSR data shows the specialty to be very stable in the jobs being performed. Three major technical jobs were identified, in addition to a number of other smaller, more specialized jobs. This resulted in some diversity in the functional areas performed by propulsion personnel. Both AFSC 426X2 and 426X3 personnel exhibited enough similarities in their duties to be able to identify jobs by functional area, as opposed to AFSC. This should not be interpreted as a recommendation to merge the two career ladders (or present shreds) since the two clearly separated within the overall jobs.

Though diversity was found in the jobs performed, examination of skill level progression shows 7-skill level qualified individuals performing many of the same tasks done by their more junior counterparts. This implies that while there is diversity in functional areas, the major repair and maintenance type tasks are performed across the specialty. The biggest impact of this diversity in jobs is on the career ladder training documents; specifically, the STSs and POIs. With so many varied functional areas employing career ladder members, several specific areas in the training documents were found matched to tasks performed by low percentages of career ladder groups. Strict interpretation of appropriate regulations would call for many of low-performing areas to be removed from the training documents.

The publication of an OSR is an excellent opportunity to make an in-depth study of these areas in the training documents to ascertain their relevance for continued inclusion in the documents. Latitude is provided in AFR 8-13 and ATCR 52-22 to have subject-matter experts examine these items and decide their fate. With proper justification and documentation, many important areas could remain in the documents.

APPENDIX A

TABLE A1
CROSS UTILIZATION TRAINING (CUT) PERSONNEL
STG0289

GROUP SIZE: 10	PERCENT OF SAMPLE: *
AVERAGE TICF: 75 MONTHS	AVERAGE TAFMS: 78 MONTHS
DAFSC: 42632: 20%	42633: 0%
42652: 30%	42653: 40%
42672: 0%	42673: 10%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
T927 GROUND AIRCRAFT	100
T936 POSITION OR REMOVE AIRCRAFT CHOCKS OR PINS	100
T926 CONNECT OR DISCONNECT EXTERNAL AIRCRAFT POWER	90
T945 WALK WINGS OR TAILS DURING AIRCRAFT TOWING OPERATIONS	90
T928 JACK OR LEVEL AIRCRAFT	70
T929 LAUNCH OR RECOVER AIRCRAFT	70
T942 SERVICE AIRCRAFT TIRES	70
T944 TOW AIRCRAFT, OTHER THAN TO AND FROM TRIM PADS	70
E158 COMPLETE AFTO FORMS 349	60
E159 COMPLETE AFTO FORMS 350	60
T935 PERFORM SINGLE-POINT OR MULTIPONT AIRCRAFT REFUELING OR DEFUELING	60
G468 SERVICE ENGINE OIL SYSTEMS	60
T939 SERVICE AIRCRAFT HYDRAULIC SYSTEMS	60
T943 TIE DOWN AIRCRAFT	60
G354 PERFORM ENGINE LEAK CHECKS	50

* Less than 1 percent

TABLE A2
IN-SHOP PERSONNEL
GP00096

GROUP SIZE: 1,224	PERCENT OF SAMPLE: 23%	
AVERAGE TICF: 54 MONTHS	AVERAGE TAFMS: 62 MONTHS	
DAFSC: 42632: 14%	42633: 1%	42699: 0%
42652: 61%	42653: 5%	
42672: 16%	42673: 2%	

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
G400 REMOVE OR INSTALL ENGINE FUEL SYSTEM COMPONENTS	94
G399 REMOVE OR INSTALL ENGINE FUEL MANIFOLDS OR NOZZLES	93
G406 REMOVE OR INSTALL ENGINE PLUMBING	93
G395 REMOVE OR INSTALL ENGINE COMBUSTION SECTIONS OR COMPONENTS	91
G404 REMOVE OR INSTALL ENGINE OIL SYSTEM COMPONENTS	91
G392 REMOVE OR INSTALL ENGINE BEARINGS	88
G278 INSPECT ENGINE PLUMBING	86
G397 REMOVE OR INSTALL ENGINE EXHAUST SECTION COMPONENTS	86
G373 PLACE PROTECTIVE COVERS ON ENGINES	85
G464 SEAL, PLUG, OR CAP LINES OR OPENINGS	85
G376 PREPARE ENGINES FOR SHIPMENT	83
G269 INSPECT ENGINE COMBUSTION SECTIONS	80
G276 INSPECT ENGINE OIL FILTERS	80
G380 REMOVE OR INSTALL ACCESSORY GEARBOX ASSEMBLIES	80
G426 REMOVE OR INSTALL OIL COOLER ASSEMBLIES	80
G396 REMOVE OR INSTALL ENGINE ELECTRICAL COMPONENTS	79
G270 INSPECT ENGINE COMPRESSORS	77
G381 REMOVE OR INSTALL ACCESSORY GEARBOX ASSEMBLY COMPONENTS	75
G391 REMOVE OR INSTALL ENGINE ANTI-ICING SYSTEM COMPONENTS	75
G417 REMOVE OR INSTALL GEARBOX ASSEMBLIES	75
G299 INSPECT TURBINE ROTOR BLADES	74
E159 COMPLETE AFTO FORMS 350	73
G273 INSPECT ENGINE EXHAUST SECTION COMPONENTS	73
G279 INSPECT ENGINE STATOR VANES	72
G393 REMOVE OR INSTALL ENGINE BLEED AIR SYSTEM COMPONENTS	72
G424 REMOVE OR INSTALL MAIN GEARBOX ASSEMBLY COMPONENTS	70
G374 PREPARE ENGINE COMPONENTS FOR SHIPMENT	69
G401 REMOVE OR INSTALL ENGINE GEARBOX DRIVE SHAFTS	68
F230 INSPECT AREAS FOR FOREIGN OBJECT DAMAGE (FOD) ITEMS	65
E158 COMPLETE AFTC FORMS 349	64

TABLE A3

PHASE DOCK PERSONNEL
STG0231

GROUP SIZE: 243	PERCENT OF SAMPLE: 4%	
AVERAGE TICF: 57 MONTHS	AVERAGE TAFMS: 63 MONTHS	
DAFSC: 42632: 12%	42633: 0%	42699: 0%
42652: 65%	42653: 2%	
42672: 20%	42673: 0%	

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
G276 INSPECT ENGINE OIL FILTERS	81
G278 INSPECT ENGINE PLUMBING	78
G354 PERFORM ENGINE LEAK CHECKS	76
G400 REMOVE OR INSTALL ENGINE FUEL SYSTEM COMPONENTS	76
G404 REMOVE OR INSTALL ENGINE OIL SYSTEM COMPONENTS	76
G406 REMOVE OR INSTALL ENGINE PLUMBING	74
E159 COMPLETE AFTO FORMS 350	73
G283 INSPECT FUEL FILTERS	73
G468 SERVICE ENGINE OIL SYSTEMS	72
G464 SEAL, PLUG, OR CAP LINES OR OPENINGS	71
E158 COMPLETE AFTO FORMS 349	69
F230 INSPECT AREAS FOR FOREIGN OBJECT DAMAGE (FOD) ITEMS	65
G262 DRAIN FUEL FILTERS	65
G273 INSPECT ENGINE EXHAUST SECTION COMPONENTS	63
G373 PLACE PROTECTIVE COVERS ON ENGINES	60
G470 SERVICE STARTER UNITS	60
G359 PERFORM GROUND OBSERVER DUTIES	57
G288 INSPECT MAGNETIC ENGINE CHIP DETECTORS	56
G268 INSPECT ENGINE BLEED VALVES AND ACTUATORS	52
G467 SERVICE CSD SYSTEMS	52
G270 INSPECT ENGINE COMPRESSORS	51
G282 INSPECT ENGINES BEFORE OR AFTER OPERATION	50
I577 REMOVE OR INSTALL ENGINES IN AIRCRAFT	50

TABLE A4

TEST CELL PERSONNEL
STG0354

GROUP SIZE: 359	PERCENT OF SAMPLE: 7%	
AVERAGE TICF: 83 MONTHS	AVERAGE TAFMS: 90 MONTHS	
DAFSC: 42632: 3%	42633: 0%	42699: 1%
42652: 53%	42653: 6%	
42672: 34%	42673: 3%	

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
G354 PERFORM ENGINE LEAK CHECKS	96
N799 SERVICE ENGINES IN TEST CELLS	96
N797 REMOVE OR INSTALL ENGINES IN TEST STANDS	95
N776 CONNECT OR DISCONNECT TEST CELL THROTTLE TO ENGINE FUEL CONTROLS	94
N777 INSPECT ASSOCIATED TEST CELL SUPPORT EQUIPMENT	94
N778 INSPECT ENGINES BEFORE AND AFTER INSTALLATION IN TEST CELLS	93
G259 CONNECT OR DISCONNECT TEST EQUIPMENT TO ENGINES	91
N773 ANALYZE ENGINE OPERATION DATA DURING TEST CELL RUNS	91
N780 MAINTAIN ASSOCIATED TEST CELL SUPPORT EQUIPMENT	91
N793 PRESERVE OR DEPRESERVE ENGINE FUEL SYSTEMS	91
G472 TAKE JOINT OIL ANALYSIS SAMPLES	90
G468 SERVICE ENGINE OIL SYSTEMS	88
N800 SERVICE TEST CELL FLUID TANKS	88
N791 PERFORM PREOPERATIONAL CHECKS OF ENGINES IN TEST STANDS	87
G246 ADJUST OPERATING ENGINES	86
N796 RECORD INSTRUMENT READINGS ON TEST LOG DURING ENGINE BLOCK TESTING	86
G282 INSPECT ENGINES BEFORE OR AFTER OPERATION	84
G373 PLACE PROTECTIVE COVERS ON ENGINES	84
G479 TRIM OPERATING ENGINES	84
G359 PERFORM GROUND OBSERVER DUTIES	82
N792 PERFORM POSTOPERATIONAL CHECKS OF ENGINES IN TEST STANDS	82
G372 PERFORM VIBRATION ANALYSES	81
G379 READ OR RECORD ENGINE OPERATION DATA	80
N798 REMOVE OR INSTALL TEST CELL ADAPTER KITS	77
F230 INSPECT AREAS FOR FOREIGN OBJECT DAMAGE (FOD) ITEMS	74
N790 PERFORM OPERATIONAL CHECKS OF UNINSTALLED ENGINES	71

TABLE A5

FLIGHTLINE PERSONNEL
STG0283

GROUP SIZE: 1,569
 AVERAGE TICF: 81 MONTHS
 DAFSC: 42632: 3%
 42652: 38%
 42672: 24%

PERCENT OF SAMPLE: 29%
 AVERAGE TAFMS: 90 MONTHS
 42633: 2%
 42653: 19%
 42673: 14%
 42699: *

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
G354 PERFORM ENGINE LEAK CHECKS	93
G400 REMOVE OR INSTALL ENGINE FUEL SYSTEM COMPONENTS	92
G276 INSPECT ENGINE OIL FILTERS	91
G404 REMOVE OR INSTALL ENGINE OIL SYSTEM COMPONENTS	91
G278 INSPECT ENGINE PLUMBING	88
G406 REMOVE OR INSTALL ENGINE PLUMBING	88
G283 INSPECT FUEL FILTERS	87
G464 SEAL, PLUG, OR CAP LINES OR OPENINGS	86
G468 SERVICE ENGINE OIL SYSTEMS	86
G327 ISOLATE MALFUNCTIONS WITHIN ENGINE OIL SYSTEMS	83
G259 CONNECT OR DISCONNECT TEST EQUIPMENT TO ENGINES	83
G273 INSPECT ENGINE EXHAUST SECTION COMPONENTS	83
G419 REMOVE OR INSTALL IGNITION SYSTEM COMPONENTS	83
G282 INSPECT ENGINES BEFORE OR AFTER OPERATION	80
G331 ISOLATE MALFUNCTIONS WITHIN ENGINE STARTER SYSTEMS	80
G373 PLACE PROTECTIVE COVERS ON ENGINES	80
E159 COMPLETE AFTO FORMS 350	79
G245 ADJUST ENGINE SYSTEM COMPONENTS	77
G270 INSPECT ENGINE COMPRESSORS	76
G271 INSPECT ENGINE CONTROLS	76
T926 CONNECT OR DISCONNECT EXTERNAL AIRCRAFT POWER	76
G455 RIG ENGINE CONTROL LINKAGES	75
G429 REMOVE OR INSTALL PORTIONS OF COWLING, NACELLES, ACCESS DOORS, OR PANELS	73
I577 REMOVE OR INSTALL ENGINES IN AIRCRAFT	73
E158 COMPLETE AFTO FORMS 349	72
I571 POSITION MAINTENANCE STANDS FOR ENGINE REMOVALS OR INSTALLATIONS	72
G359 PERFORM GROUND OBSERVER DUTIES	71
G456 RIG ENGINE THROTTLE CONTROL SYSTEMS	70
I572 PREPARE AIRCRAFT FOR ENGINE REMOVALS OR INSTALLATIONS	70
F230 INSPECT AREAS FOR FOREIGN OBJECT DAMAGE (FOD) ITEMS	69

* Less than 1 percent

TABLE A6

BALANCE SHOP PERSONNEL
STG0270

GROUP SIZE: 19
 AVERAGE TICF: 45 MONTHS
 DAFSC: 42632: 42%
 42652: 42%
 42672: 46%

PERCENT OF SAMPLE: *
 AVERAGE TAFMS: 49 MONTHS
 42633: 0%
 42653: 0%
 42673: 0%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
G249 BLEND ENGINE COMPRESSOR BLADES	100
E159 COMPLETE AFTO FORMS 350	95
G252 BLEND ENGINE STATOR VANES	95
G270 INSPECT ENGINE COMPRESSORS	95
G279 INSPECT ENGINE STATOR VANES	95
G255 BLEND ENGINE TURBINE WHEEL BLADES	89
G299 INSPECT TURBINE ROTOR BLADES	89
G300 INSPECT TURBINE ROTORS	89
K647 REMOVE OR INSTALL COMPRESSOR BLADES	89
M759 DYNAMICALLY BALANCE TURBINES	89
M762 MEASURE BLADE TIP RADII	89
M764 MEASURE STATOR VANE TIP RADII	89
E158 COMPLETE AFTO FORMS 349	84
K606 BLEND ENGINE TURBINE BLADES	84
K669 REPAIR ENGINE COMPRESSORS	84
M758 DYNAMICALLY BALANCE COMPRESSORS	84
M765 PERFORM PERMANENT BALANCE CORRECTIONS ON COMPRESSOR ROTORS	84
M767 PERFORM RUNOUT CHECKS ON COMPRESSOR ROTOR CASINGS	84
M770 TEST FOR ROTOR BALANCE	84
M771 WEIGH COMPRESSOR ROTOR BLADES	84
M772 WEIGH TURBINE BLADES	84
K595 ASSEMBLE OR DISASSEMBLE COMPRESSOR UNITS	79
K663 REMOVE OR INSTALL TURBINE ROTOR BLADES	79
K677 WEIGH ENGINE COMPRESSOR BLADES	79
M760 INSPECT BALANCE SHOP EQUIPMENT	79
M766 PERFORM PERMANENT BALANCE CORRECTIONS ON TURBINE ROTORS	79
K652 REMOVE OR INSTALL ENGINE STATOR VANES	74
K673 REPAIR ENGINE STATOR VANES	74
M769 STATIC BALANCE BLADED DISC ASSEMBLIES	74

* Less than 1 percent

TABLE A7

AFTERBURNER/AUGMENTOR MODULE PERSONNEL
GP00097

GROUP SIZE: 67	PERCENT OF SAMPLE: 1%
AVERAGE TICF: 34 MONTHS	AVERAGE TAFMS: 41 MONTHS
DAFSC: 42632: 16%	42633: 0%
42652: 76%	42653: 1%
42672: 6%	42673: 0%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
G266 INSPECT AFTERBURNERS OR AUGMENTORS	96
K666 REPAIR AFTERBURNERS OR AUGMENTORS	90
K594 ASSEMBLE OR DISASSEMBLE AFTERBURNERS OR AUGMENTORS	82
E159 COMPLETE AFTO FORMS 350	70
G382 REMOVE OR INSTALL AFTERBURNER OR AUGMENTOR SYSTEM COMPONENTS	70
G243 ADJUST AFTERBURNER OR AUGMENTOR NOZZLE AREAS	69
E141 COMPLETE AF FORMS 2005 (ISSUE/TURN IN REQUEST)	64
E158 COMPLETE AFTO FORMS 349	63
G256 CLEAN ENGINE PARTS USING CLEANERS, OTHER THAN ULTRASONIC CLEANERS	63
K635 PACK OR UNPACK AFTERBURNERS OR AUGMENTORS	63
G452 RIG AFTERBURNER OR AUGMENTOR SYSTEMS	58
K629 MAINTAIN AFTERBURNER OR AUGMENTOR REPAIR EQUIPMENT	57
G464 SEAL, PLUG, OR CAP LINES OR OPENINGS	57
F230 INSPECT AREAS FOR FOREIGN OBJECT DAMAGE (FOD) ITEMS	55
G375 PREPARE ENGINE MODULES FOR SHIPMENT	54

TABLE A8

ACCESSORY REPAIR PERSONNEL
STG0055

GROUP SIZE: 102	PERCENT OF SAMPLE: 2%	
AVERAGE TICF: 43 MONTHS	AVERAGE TAFMS: 51 MONTHS	
DAFSC: 42632: 13%	42633: 3%	42699: 0%
42652: 64%	42653: 11%	
42672: 8%	42673: 2%	

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
E159 COMPLETE AFTO FORMS 350	84
G256 CLEAN ENGINE PARTS USING CLEANERS, OTHER THAN ULTRASONIC CLEANERS	75
E158 COMPLETE AFTO FORMS 349	74
E_41 COMPLETE AF FORMS 2005	60
G464 SEAL, PLUG, OR CAP LINES OPENINGS	53
K607 CLEAN AND INSPECT ENGINE BEARINGS	46
F230 INSPECT AREAS FOR FOREIGN OBJECT DAMAGE (FOD) ITEMS	45
G617 INSPECT ENGINE FUEL NOZZLES	45
K638 PERFORM OPERATIONAL CHECKS OF FUEL NOZZLES	42
K667 REPAIR ENGINE ACCESSORIES OR COMPONENTS	40
K616 INSPECT ENGINE FUEL MANIFOLDS	39
K631 MAINTAIN ENGINE ACCESSORY SHOP EQUIPMENT	34
G374 PREPARE ENGINE COMPONENTS FOR SHIPMENT	33
K630 MAINTAIN BEARING SERVICING EQUIPMENT	32
G378 PURGE AND PRESERVE FUEL SYSTEM COMPONENTS FOR SHIPMENT	31
K637 PERFORM OPERATIONAL CHECKS OF FUEL MANIFOLDS	30
G285 INSPECT GEARBOX ASSEMBLIES	29
K601 BENCH CHECK ENGINE ACTUATORS	29
K632 MAINTAIN FUEL MANIFOLD TEST STANDS	28
G268 INSPECT ENGINE BLEED VALVES AND ACTUATORS	27
G277 INSPECT ENGINE OR ACCESSORY SPLINES	27
G284 INSPECT GARLOCK (SHAFT) SEALS	27
G294 INSPECT THRUST REVERSER ASSEMBLY COMPONENTS	25
G265 INSPECT ACCESSORY GEARBOXES	24
G381 REMOVE OR INSTALL ACCESSORY GEARBOX ASSEMBLY COMPONENTS	23
G440 REMOVE OR INSTALL THRUST REVERSER ASSEMBLY COMPONENTS	23

TABLE A9
QUALITY ASSURANCE PERSONNEL
STG0254

GROUP SIZE: 126	PERCENT OF SAMPLE: 2%	
AVERAGE TICF: 156 MONTHS	AVERAGE TAFMS: 165 MONTHS	
DAFSC: 42632: 0%	42633: 0%	42699: 6%
42652: 8%	42653: 0%	
42672: 70%	42673: 17%	

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
F230 INSPECT AREAS FOR FOREIGN OBJECT DAMAGE (FOD) ITEMS	96
F229 EVALUATE SAFETY PROCEDURES	90
F228 EVALUATE IN-PROCESS MAINTENANCE	87
F231 INSPECT ENGINES OR ASSOCIATED EQUIPMENT FOR CORROSION	87
F238 REVIEW TECHNICAL ORDER CHANGES	87
F236 PERFORM QUALITY VISUAL INSPECTIONS (QVI) OF ENGINES	86
C79 INSPECT FLIGHTLINE MAINTENANCE ACTIONS	83
C70 EVALUATE PERSONNEL FOR COMPLIANCE WITH PERFORMANCE STANDARDS OR TECHNICAL ORDERS	83
C80 INSPECT IN-SHOP MAINTENANCE ACTIONS	81
F232 PERFORM ACTIVITY INSPECTIONS	75
C82 INVESTIGATE ACCIDENTS OR INCIDENTS	75
F235 PERFORM MODIFICATIONS OR TCTO INSPECTIONS	73
F227 COORDINATE QUALITY ASSURANCE PROBLEMS WITH DCM AND MAINTENANCE PERSONNEL	71
G280 INSPECT ENGINE TRAILERS OR STANDS	70
F237 REVIEW ENGINE DEFICIENCY, SERVICE, OR STATUS REPORTS	69
A12 DEVELOP QUALITY ASSURANCE PROGRAMS	66
E209 PERFORM ROUTINE INSPECTIONS OF SPECIAL TOOLS	59
C65 EVALUATE INSPECTION REPORT FINDINGS	58
F239 REVIEW UNSATISFACTORY CONDITION REPORTS (UCR)	57
E143 COMPLETE AF FORMS 2420 (QUALITY CONTROL INSPECTION SUMMARY)	56
F226 COORDINATE DEFICIENCY OR SERVICE REPORTS WITH APPROPRIATE AGENCIES	56
G289 INSPECT MAINTENANCE FACILITIES	56
C72 EVALUATE SAFETY OR SECURITY PROGRAMS	55
E116 ANNOTATE AF FORMS 2419 (ROUTING AND REVIEW OF QUALITY CONTROL REPORTS)	53
F234 PERFORM ENGINE BAY POSTINSTALLATION INSPECTIONS	52
C81 INSPECT PERSONNEL FOR COMPLIANCE WITH MILITARY STANDARDS	51
F233 PERFORM ENGINE BAY PREINSTALLATION INSPECTIONS	49

TABLE A10

SUPERVISORY PERSONNEL
STG0126

GROUP SIZE: 533	PERCENT OF SAMPLE: 10%
AVERAGE TICF: 176 MONTHS	AVERAGE TAFMS: 191 MONTHS
DAFSC: 42632: 0%	42633: 0%
42652: 10%	42653: *
42672: 53%	42673: 10%
	42699: 27%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
C86 WRITE APRs	94
B32 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	89
A8 DETERMINE WORK PRIORITIES	86
C81 INSPECT PERSONNEL FOR COMPLIANCE WITH MILITARY STANDARDS	85
A1 ASSIGN MAINTENANCE AND REPAIR WORK	79
A2 ASSIGN PERSONNEL TO DUTY POSITIONS	77
C88 WRITE RECOMMENDATIONS FOR AWARDS AND DECORATIONS	77
A20 PLAN OR SCHEDULE WORK ASSIGNMENTS	75
B48 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	75
A21 PLAN OR SCHEDULE WORK PRIORITIES	74
C77 INDORSE APRs	73
B31 CONDUCT SUPERVISORY ORIENTATIONS OF NEWLY ASSIGNED PERSONNEL	72
D91 ANNOTATE TRAINING RECORDS	70
A24 SCHEDULE LEAVES	69
C70 EVALUATE PERSONNEL FOR COMPLIANCE WITH PERFORMANCE STANDARDS OR TECHNICAL ORDERS	65
D108 MAINTAIN TRAINING RECORDS	65
D92 ASSIGN OJT TRAINERS	62
B54 SUPERVISE JET ENGINE MECHANICS (AFSC 42652)	61
A17 ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	60
B55 SUPERVISE JET ENGINE TECHNICIANS (AFSC 42672)	58
A5 COORDINATE WORK ON ENGINE COMPONENTS WITH APPROPRIATE AGENCIES	57
D106 EVALUATE PROGRESS OF TRAINEES	57
B43 IMPLEMENT SELF-INSPECTION PROGRAMS	54
C61 ANALYZE WORKLOAD REQUIREMENTS	53
C75 EVALUATE WORK SCHEDULES	52

* Less than 1 percent

TABLE A11
TRAINING PERSONNEL
STG0037

GROUP SIZE: 80	PERCENT OF SAMPLE: 1%
AVERAGE TICF: 125 MONTHS	AVERAGE TAFMS: 132 MONTHS
DAFSC: 42632: 3%	42633: 0%
42652: 29%	42653: 8%
42672: 48%	42673: 13%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
D90 ADMINISTER TESTS	80
D112 SCORE TESTS	73
D97 COUNSEL TRAINEES ON TRAINING PROGRESS	65
D91 ANNOTATE TRAINING RECORDS	64
D113 WRITE TEST QUESTIONS	61
D111 PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	55
D106 EVALUATE PROGRESS OF TRAINEES	54
B32 COUNSEL SUBORDINATES ON PERSONAL OR MILITARY-RELATED MATTERS	51
D95 CONDUCT RESIDENT COURSE CLASSROOM TRAINING	50
D101 DEVELOP PERFORMANCE TESTS	45
D108 MAINTAIN TRAINING RECORDS	43
D102 DIRECT OR IMPLEMENT TRAINING PROGRAMS	41

TABLE A12
NONPOWERED SUPPORT EQUIPMENT PERSONNEL
STG0125

GROUP SIZE: 141	PERCENT OF SAMPLE: 3%	
AVERAGE TICF: 71 MONTHS	AVERAGE TAFMS: 79 MONTHS	
DAFSC: 42632: 6%	42633: 1%	42699: 0%
42652: 58%	42653: 8%	
42672: 24%	42673: 2%	

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS	PERCENT MEMBERS PERFORMING
S906 ADJUST ENGINE TRAILER BRAKES	96
S909 CLEAN AND PACK ENGINE TRAILER WHEEL BEARINGS	96
S912 INSPECT AND SERVICE ENGINE TRAILER TIRES	95
S910 CLEAN ENGINE TRAILERS OR STANDS	94
S917 PAINT AND MARK NONPOWERED ENGINE SUPPORT EQUIPMENT	92
S907 ASSEMBLE OR DISASSEMBLE ENGINE TRAILER PARKING BRAKE ASSEMBLIES	91
S908 ASSEMBLE OR DISASSEMBLE ENGINE TRAILER WHEEL AND HUB ASSEMBLIES	91
S911 INSPECT AND SERVICE ENGINE TRAILER HYDRAULIC SYSTEMS	89
S916 MAINTAIN INSPECTION STATUS OF NONPOWERED SUPPORT EQUIPMENT	87
S921 PERFORM PERIODIC INSPECTIONS OF GENERAL SUPPORT EQUIPMENT	87
S923 REMOVE OR INSTALL ENGINE TRAILER PARKING BRAKE ASSEMBLY COMPONENTS	84
S919 PERFORM OPERATIONAL CHECKS OF ENGINE INSTALLATION/REMOVAL TRAILERS	84
S922 REMOVE OR INSTALL LIFT CYLINDERS ON ENGINE INSTALLATION/ REMOVAL TRAILERS	81
E159 COMPLETE AFTO FORMS 350	77
S913 INSPECT NONPOWERED SUPPORT EQUIPMENT, OTHER THAN ENGINE- RELATED	77
S918 PERFORM FRONT-END ALIGNMENT OF ENGINE TRAILERS	76
G280 INSPECT ENGINE TRAILERS OR STANDS	73
S915 LUBRICATE ENGINE HOIST ASSEMBLIES	70
E141 COMPLETE AF FORMS 2005 (ISSUE/TURN IN REQUEST)	68
E158 COMPLETE AFTO FORMS 349	65
E157 COMPLETE AFTO FORMS 244 AND 245 (INDUSTRIAL/SUPPORT EQUIPMENT RECORD)	62

TABLE A13

MATERIAL SUPPORT PERSONNEL
STG0110

GROUP SIZE: 233	PERCENT OF SAMPLE: 4%
AVERAGE TICF: 85 MONTHS	AVERAGE TAFMS: 98 MONTHS
DAFSC: 42632: 5%	42633: *
42652: 50%	42653: 8%
42672: 30%	42673: 5%
42699: *	

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
E182 INVENTORY SPECIAL TOOLS, SUCH AS CONSOLIDATED TOOL KITS (CTK) AND TOOL ROOM CHITS	85
E183 ISSUE SPECIAL TOOLS	85
E181 INVENTORY EQUIPMENT OR SUPPLIES	78
E204 MAINTAIN TOOL CRIBS	76
E209 PERFORM ROUTINE INSPECTIONS OF SPECIAL TOOLS	75
E210 PERFORM SHIFT SECURITY CHECKS OF TOOL CRIB	75
E141 COMPLETE AF FORMS 2005 (ISSUE/TURN IN REQUEST)	70
E169 INITIATE AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	68
E208 PERFORM PERIODIC INSPECTIONS OF SPECIAL TOOLS	67
E185 MAINTAIN BENCH STOCK LISTINGS	65
E159 COMPLETE AFTO FORMS 350	64
E212 PROCESS DAMAGED TOOLS FOR DISTRIBUTION AND REPLACEMENT	57
E187 MAINTAIN D18, D19, D04, AND M30 TRANSACTION ROSTERS	55
A4 COORDINATE CALIBRATION OF SPECIAL TOOLS OR TEST EQUIPMENT WITH PMEL	52
E133 ATTACH OR ANNOTATE EQUIPMENT STATUS LABELS OR TAGS, SUCH AS DD FORMS 1574 (SERVICEABLE TAG- MATERIAL)	52
E165 DRESS OR RESURFACE SPECIAL TOOLS, SUCH AS BRASS HAMMERS OR CHISELS	52
E184 MAINTAIN AF FORMS 2005 SUSPENSE FILES	49
E215 REVIEW AND UPDATE PMEL LISTINGS	49
E216 SNAP CHECK TORQUE WRENCHES	49
E213 PROCESS DUE-IN-FROM-MAINTENANCE (DIFM) ITEMS	48
E161 COMPLETE DD FORMS 1348-6 (DOD SINGLE LINE ITEM REQUISITION SYSTEM DOCUMENT)	47
E186 MAINTAIN DIFM TRANSACTION ROSTERS (R26)	47
E223 VALIDATE BENCH STOCK LISTINGS	47
E202 MAINTAIN SPECIAL TOOLS CALIBRATION RECORDS	39

* Less than 1 percent

TABLE A14

PROPELLER SHOP PERSONNEL
STG1487

GROUP SIZE: 40
 AVERAGE TICF: 80 MONTHS
 DAFSC: 42632: 0%
 42652: 0%
 42672: 0%

PERCENT OF SAMPLE: *
 AVERAGE TAFMS: 88 MONTHS
 42633: 5%
 42653: 63%
 42673: 33%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
H488 ADJUST PULSE GENERATOR CLEARANCES	100
H492 DRAIN OIL FROM PROPELLER COMPONENTS	100
H494 INSPECT PROPELLERS OR RELATED COMPONENTS	100
H524 REMOVE OR INSTALL PROPELLER BRUSH BLOCKS	100
H530 REMOVE OR INSTALL PUMP HOUSINGS	100
H534 REMOVE OR INSTALL VALVE HOUSINGS	100
L731 REMOVE OR INSTALL DEICER CONTACT RING ASSEMBLIES	100
L742 REMOVE OR INSTALL PROPELLER BLADES IN HUBS	100
L743 REMOVE OR INSTALL PROPELLER BRUSH BLOCK ASSEMBLIES	100
L744 REMOVE OR INSTALL PROPELLER CONTROL ASSEMBLIES	100
H491 CLEAN PROPELLERS OR RELATED COMPONENTS, OTHER THAN OIL FILTERS	98
H510 REMOVE OR INSTALL DOME SHELLS	98
L711 PERFORM EXTERNAL LEAKAGE CHECKS OF PROPELLER ASSEMBLIES	98
L730 REMOVE OR INSTALL BULKHEAD ASSEMBLIES	98
L740 REMOVE OR INSTALL PROPELLER BLADE PACKINGS	98
L746 REMOVE OR INSTALL PROPELLERS ON ASSEMBLY STANDS	98
H495 INSPECT SPINNER CONES	95
H521 REMOVE OR INSTALL PITCH LOCK REGULATORS	95
H538 REWORK PROPELLER BLADE NICKS, BURRS, OR SCRATCHES	95
H544 SPRAY PAINT PROPELLER TIPS OR BLADE DATA SECTIONS	95
L689 ASSEMBLE OR DISASSEMBLE PUMP HOUSINGS	95
H490 CLEAN PROPELLER SYSTEM OIL FILTERS	93
H536 REPAIR CUFFS, AFTERBODIES, OR SPINNERS	93
L701 INSTALL DOME PREFORMED PACKINGS	93
L712 PERFORM INTERNAL LEAKAGE CHECKS OF PROPELLER ASSEMBLIES	93
L738 REMOVE OR INSTALL PROPELLER BLADE DEICING BRUSH BLOCK ASSEMBLY COMPONENTS	93
E159 COMPLETE AFTO FORMS 350	88
L685 ASSEMBLE OR DISASSEMBLE BRUSH BLOCK ASSEMBLIES	88
L699 CRATE OR UNCRATE PROPELLERS	88
L704 INSTALL PROPELLER HUB PREFORMED PACKINGS	88

* Less than 1 percent

TABLE A15

SMALL GAS TURBINE PERSONNEL
STG0312

GROUP SIZE: 16	PERCENT OF SAMPLE: *	
AVERAGE TICF: 52 MONTHS	AVERAGE TAFMS: 55 MONTHS	
DAFSC: 42632: 13%	42633: 0%	42699: 0%
42652: 69%	42653: 0%	
42672: 19%	42673: 0%	

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
P820 INSPECT SGT ENGINE COMPONENTS	100
P826 REMOVE OR INSTALL SGT ENGINE COMPONENTS	100
P818 ANALYZE SGT ENGINE OPERATION DATA DURING TEST STAND RUNS	94
P819 ASSEMBLE OR DISASSEMBLE SGT ENGINES	94
P823 OPERATE SGT ENGINES ON TEST STANDS	94
P827 REMOVE OR INSTALL SGT ENGINES ON PORTABLE TEST STANDS	94
P821 INSPECT SGT ENGINE PORTABLE TEST STANDS	88
P822 MAINTAIN SGT ENGINE PORTABLE TEST STANDS	88
P817 ADJUST SGT ENGINE COMPONENTS	81
P829 SERVICE SGT ENGINE PORTABLE TEST STANDS	81
P816 ADJUST SGT ENGINES	75
P831 TEST SGT ENGINE FUEL NOZZLES	69
P828 REMOVE OR INSTALL SGT ENGINES, OTHER THAN ON PORTABLE TEST STANDS	63
P825 PERFORM RIGID BOROSCOPE INSPECTIONS OF SGT ENGINES	50
P830 TEST AND REPAIR SGT ENGINE CENTRIFUGAL SWITCH ASSEMBLIES	50
P824 OPERATE SGT ENGINES USING GTC/APU ANALYZER	44
0804 ASSEMBLE OR DISASSEMBLE APUs	38
0805 INSPECT APUs	38
0806 ISOLATE MALFUNCTIONS WITHIN APUs	38
0812 REMOVE OR INSTALL APU COMPONENTS	38
0813 REMOVE OR INSTALL APUs ON PORTABLE TEST STANDS	38

* Less than 1 percent

TABLE A16
TECHNICAL ORDER PERSONNEL
STG0255

GROUP SIZE: 18	PERCENT OF SAMPLE: *	
AVERAGE TICF: 106 MONTHS	AVERAGE TAFMS: 119 MONTHS	
DAFSC: 42632: 0%	42633: 0%	42699: 0%
42652: 39%	42653: 11%	
42672: 50%	42673: 0%	

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
B37 DIRECT MAINTENANCE OF TECHNICAL ORDER (TO) FILES	89
E203 MAINTAIN TECHNICAL ORDER PUBLICATION FILES	89
F238 REVIEW TECHNICAL ORDER CHANGES	78
E177 INITIATE OR REVIEW TECHNICAL ORDER SYSTEM FORMS SUCH AS AFTO FORMS 22, 27, 110, 110A, 110B, AND 131	67
F241 VERIFY RECEIPT OF TCTO CHANGES	61
A7 DETERMINE PUBLICATION REQUIREMENTS	56
E196 MAINTAIN MICROFICHE STOCK FILES	39
A13 DEVELOP SELF-INSPECTION PROGRAMS	33
C74 EVALUATE TECHNICAL ORDER IMPROVEMENT REPORTS	33

* Less than 1 percent

TABLE A17
HIGHER HEADQUARTERS PERSONNEL
STG0267

GROUP SIZE: 24	PERCENT OF SAMPLE: *	
AVERAGE TICF: 217 MONTHS	AVERAGE TAFMS: 226 MONTHS	
DAFSC: 42632: 0%	42633: 0%	42699: 58%
42652: 0%	42653: 0%	
42672: 29%	42673: 13%	

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
C65 EVALUATE INSPECTION REPORT FINDINGS	88
C73 EVALUATE SUGGESTIONS	88
C74 EVALUATE TECHNICAL ORDER IMPROVEMENT REPORTS	79
C89 WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS, OTHER THAN TRAINING REPORTS	79
C60 ANALYZE RECURRING TROUBLES ON EQUIPMENT IDENTIFIED BY DEFICIENCY OR SERVICE REPORTS	75
C76 IDENTIFY PROBLEM AREAS USING DEFICIENCY OR SERVICE REPORTS	75
A6 DETERMINE LOGISTICS REQUIREMENTS, SUCH AS SPACE, PERSONNEL, OR EQUIPMENT	67
A18 PLAN BRIEFINGS	63
C64 EVALUATE EQUIPMENT MODIFICATION DATA	58
C63 EVALUATE CAUSES OF MISSION OPERATIONAL DISCREPANCIES	46
A19 PLAN LAYOUT OF FACILITIES	38
E177 INITIATE OR REVIEW TECHNICAL ORDER SYSTEM FORMS, SUCH AS AFTO FORMS 22, 27, 110, 110A, 110B, AND 131	38
F237 REVIEW ENGINE DEFICIENCY, SERVICE, OR STATUS REPORTS	38
F238 REVIEW TECHNICAL ORDER CHANGES	38
B48 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	33

* Less than 1 percent

TABLE A18
ENGINE MONITORING PERSONNEL
STG0067

CROUP SIZE: 26	PERCENT OF SAMPLE: *	
AVERAGE TICF: 102 MONTHS	AVERAGE TAFMS: 109 MONTHS	
DAFSC: 42632: 0%	42633: 0%	42699: 0%
42652: 50%	42653: 0%	
42672: 50%	42673: 0%	

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
Q832 ANALYZE ENGINE PERFORMANCE DATA	100
Q848 UPDATE AUTOMATED ENGINE PERFORMANCE OR MAINTENANCE DATA	88
Q833 COORDINATE JOINT OIL ANALYSIS PROGRAM (JOAP) RECORDS WITH APPROPRIATE AGENCIES	77
Q843 REPORT MAINTENANCE OR DIAGNOSTIC CHECK REQUIREMENTS TO FLIGHTLINE PERSONNEL FOR RESCLUTION	77
Q838 PERFORM ENGINE CONDITION MONITORING PROGRAM (ECMP) BRIEFINGS	69
Q840 PREPARE ECMP REPORTS	69
Q841 PREPARE ECMP TDY PACKETS	62
E176 INITIATE OR REVIEW IN-FLIGHT ENGINE SHUTDOWN, TEST CELL REJECT, OR PREMATURE ENGINE REMOVAL FORMS	58
Q836 MANUALLY RECORD ENGINE PERFORMANCE OR MAINTENANCE DATA	58
Q839 PERFORM FLIGHTLINE DATA ANALYSES OR DIAGNOSTIC CHECKS	58
Q844 REVIEW JOAP RECORDS	58
G247 ANALYZE ENGINE OPERATION DATA, OTHER THAN DURING TEST CELL RUNS	54
Q835 MANUALLY ANNOTATE ECMP FORMS	54
Q846 TRANSMIT ENGINE PERFORMANCE DATA	50
Q850 UPLOAD AIRCRAFT ENGINE COMPUTERS	50
Q845 TRACK OVERDUE, ROUTINE, OR REDCAP OIL SAMPLES	46
G379 READ OR RECORD ENGINE OPERATION DATA	42
Q849 UPDATE AUTOMATED GROUND STATION UNITS	42
E174 INITIATE OR COMPLETE DD FORMS 2026 (OIL ANALYSIS REQUEST)	38
Q834 LOAD ENGINE MAINTENANCE DATA TAPES INTO ENGINE DATA BASE	38
Q837 PERFORM DATA ACQUISITIONS	35
Q847 UPDATE AUTOMATED ENGINE JOAP RECORDS	31

* Less than 1 percent

TABLE A19

ENGINE MANAGEMENT PERSONNEL
STG0095

GROUP SIZE: 59	PERCENT OF SAMPLE: 1%
AVERAGE TICF: 134 MONTHS	AVERAGE TAFMS: 142 MONTHS
DAFSC: 42632: 0%	42633: 0%
42652: 31%	42653: 2%
42672: 51%	42673: 8%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
E121 ANNOTATE AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	88
R854 COORDINATE ENGINE CHANGES WITH APPROPRIATE AGENCIES	81
R886 PREPARE ENGINE RECORDS FOR TRANSFER	80
R897 TRACK REPAIR OF ENGINES OR ENGINE MODULES	76
R878 MAINTAIN MANUAL AFTO FORMS 95	73
R895 TRACK ENGINE REMOVALS OR INSTALLATIONS AT TRANSIENT LOCATIONS	73
R901 UPDATE AUTOMATED ENGINE REMOVAL OR INSTALLATIONS DATA	71
R855 COORDINATE TIME CHANGE ITEMS WITH AIRCRAFT PLANS AND SCHEDULING	68
R858 FORECAST TIME CHANGE REPLACEMENT ITEMS	68
R882 POST SPARE ENGINE STATUS BOARDS	68
R904 VERIFY DOCUMENTATION OF REPAIRED ENGINES OR ENGINE MODULES	68
B29 CALL IN ENGINE STATUS REPORTS	66
E119 ANNOTATE AFTO FORMS 44 (TURBINE WHEEL HISTORICAL RECORD)	66
E190 MAINTAIN ENGINE LOCATION OR STATUS FILES	66
R875 MAINTAIN AUTOMATED AFTO FORMS 95	66
A25 SCHEDULE OR PROJECT ENGINE REPLACEMENTS	63
R856 ESTABLISH AUTOMATED ENGINE HISTORY FILES	63
E192 MAINTAIN ENGINE OR AFTERBURNER HISTORICAL RECORDS	61
R863 INITIATE MESSAGE REPORTS RELATING TO ENGINE STATUS	61
R899 UPDATE AUTOMATED ENGINE HISTORY RECORDS	61
E218 UPDATE AUTOMATED AFTO FORMS 95	59
R877 MAINTAIN MANUAL AFTO FORMS 44	59
R884 PREPARE CONSOLIDATED ENGINE MANAGEMENT SYSTEM (CEMS) REPORTS	59
R902 UPDATE AUTOMATED ENGINE TIME CHANGE AND INSPECTION RECORDS	59
R860 INITIATE ENGINE RECEIVING OR SHIPPING REPORTS	58
R868 INTERPRET TIME CHANGE AND INSPECTION REQUIREMENTS	58
R888 PREPARE 6-MONTH ENGINE CHANGE FORECASTS	54

APPENDIX B

TABLE B1

AFSC 454X0A (426X2) STS ITEMS NOT SUPPORTED BY STRICT OSR DATA

STS REFERENCE/TASKS	TRN EMP*	FIRST- ENLISTMENT (N=1,526)	5-SKILL LEVEL (N=2,362)	7-SKILL LEVEL (N=1,486)	TSK
					DIF**
9d MATERIAL DEFICIENCY REPORTING SYSTEM	A B				
F226 COORDINATE DEFICIENCY OR SERVICE REPORTS WITH APPROPRIATE AGENCIES		.58	1%	3%	12%
					5.32
10c CONTROL OF HANDTOOLS	A B				
E210 PERFORM SHIFT SECURITY CHECKS OF TOOL CRIB		1.87	12%	14%	18%
					3.08
12f(3) ENGINE STATUS REPORT	- B				
E139 COMPLETE AF FORMS 1534 (ENGINE STATUS REPORT)		1.58	2%	3%	11%
					4.62
15a(1) PERFORM PRELIMINARY MAINTENANCE PROCEDURES- RECORDS	2b B				
E176 INITIATE OR REVIEW IN-FLIGHT ENGINE SHUTDOWN, TEST CELL REJECT, OR PREMATURE ENGINE REMOVAL FORMS		1.73	2%	6%	17%
					5.54

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B1 (CONTINUED)

AFSC 454X0A (426X2) STS ITEMS NOT SUPPORTED BY STRICT OSR DATA

<u>STS REFERENCE/TASKS</u>	<u>TRN EMP*</u>	<u>FIRST-ENLISTMENT (N=1,526)</u>	<u>5-SKILL LEVEL (N=2,362)</u>	<u>7-SKILL LEVEL (N=1,486)</u>	<u>TSK DIF**</u>
15b(1)(c) REPAIR OF ENGINE PLUMBING	A -				
K672 REPAIR ENGINE PLUMBING		2.02	15%	13%	6% 5.11
15b(2)(c) REPAIR OF AFTERBURNERS	2b -				
K666 REPAIR AFTERBURNER OR AUGMENTORS		1.83	11%	10%	7% 5.79
15b(3)(c) REPAIR OF TURBINE SECTION(S)	A -				
K674 REPAIR TURBINE SECTIONS		1.92	8%	7%	3% 5.99
15b(4)(c) REPAIR OF COMBUSTION SECTIONS	A -				
K668 REPAIR ENGINE COMBUSTION SECTIONS		1.69	11%	9%	5% 5.58
15b(5)(c) REPAIR OF COMPRESSORS	A -				
K669 REPAIR ENGINE COMPRESSORS		2.13	11%	10%	5% 6.36

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B1 (CONTINUED)

AFSC 454X0A (426X2) STS ITEMS NOT SUPPORTED BY STRICT OSR DATA

STS REFERENCE/TASKS	TRN EMP*	FIRST- ENLISTMENT (N=1,526)	5-SKILL LEVEL (N=2,362)	7-SKILL LEVEL (N=1,486)	TSK DIF**
15b(6)(c) REPAIR OF ENGINE ACCESSORIES	A -				
K667 REPAIR ENGINE ACCESSORIES OR COMPONENTS		2.07	14%	13%	5% 5.32
15b(7)(b) INSPECT ENGINE BEARINGS	2b -				
K507 CLEAN AND INSPECT ENGINE BEARINGS		3.66	16%	14%	10% 5.49
15b(8)(c) REPAIR OF OIL SEALS	A -				
K628 LAP ENGINE OIL CARBON SEALS		2.00	6%	5%	3% 5.26
15b(9)(c) REPAIR OF FUEL MANIFOLDS AND FUEL NOZZLES	A -				
G451 REPAIR ENGINE FUEL NOZZLES		2.11	7%	6%	3% 5.56
K670 REPAIR ENGINE FUEL MANIFOLDS		1.59	5%	4%	2% 5.65
15b(10)(c) REPAIR OF GEARBOX	A -				
K671 REPAIR ENGINE GEARBOX		1.53	5%	4%	2% 5.94

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B1 (CONTINUED)

AFSC 454X0A (426X2) STS ITEMS NOT SUPPORTED BY STRICT OSR DATA

STS REFERENCE/TASKS	TRN EMP*	FIRST- ENLISTMENT (N=1,526)	5-SKILL LEVEL (N=2,362)	7-SKILL LEVEL (N=1,486)	TSK
					DIF**
16b(1) REMOVE ENGINE IN TEST STAND	- B				
N797 REMOVE OR INSTALL ENGINES IN TEST STANDS	3.07	12%	13%	10%	5.00
16b(2) INSTALL ENGINE IN TEST STAND	- B				
N797 REMOVE OR INSTALL ENGINES IN TEST STANDS	3.07	12%	13%	10%	5.00
16c PERFORM OPERATIONAL CHECKS OF ENGINE IN TEST STAND	- B				
N790 PERFORM OPERATIONAL CHECKS OF UNINSTALLED ENGINES	2.98	5%	7%	8%	6.47
16d RECORD INSTRUMENT READINGS ON APPLICABLE TEST LOG	- B				
N796 RECORD INSTRUMENT READINGS ON TEST LOG DURING ENGINE BLOCK TESTING	2.89	6%	8%	9 ^a	5.08

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33

** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B1 (CONTINUED)

AFSC 454X0A (426X2) STS ITEMS NOT SUPPORTED BY STRICT OSR DATA

STS REFERENCE/TASKS	TRN EMP*	FIRST- ENLISTMENT (N=1,526)	5-SKILL LEVEL (N=2,362)	7-SKILL LEVEL (N=1,486)	TSK DIF**
16e USE ENGINE VIBRATION ANALYZER	- B				
G372 PERFORM VIBRATION ANALYSES		2.67	11%	16%	19%
					6.52
16g PERFORM PREOPERATIONAL CHECKS IN TEST STAND	- B				
N791 PERFORM PREOPERATIONAL CHECKS OF ENGINES IN TEST STAND		3.32	6%	9%	9%
					5.89
16h PERFORM POST-OPERATIONAL CHECKS IN TEST STAND	- B				
N792 PERFORM POSTOPERATIONAL CHECKS OF ENGINES IN TEST STANDS		3.29	5%	8%	9%
					5.63
16i COMPUTE ENGINE PARAMETERS	- B				
N775 COMPUTE UNINSTALLED ENGINE PARAMETERS		2.34	3%	6%	8%
					6.70
16j EVALUATE ENGINE PERFORMANCE	- B				
N773 ANALYZE ENGINE OPERATION DATA DURING TEST CELL RUNS		3.00	7%	10%	11%
					6.79

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B1 (CONTINUED)

AFSC 454X0A (426X2) STS ITEMS NOT SUPPORTED BY STRICT OSR DATA

<u>STS REFERENCE/TASKS</u>	<u>TRN EMP*</u>	<u>FIRST- ENLISTMENT (N=1,526)</u>	<u>5-SKILL LEVEL (N=2,362)</u>	<u>7-SKILL LEVEL (N=1,486)</u>	<u>TSK DIF**</u>
16k(1) MAINTAIN TEST STAND	- B				
N780 MAINTAIN ASSOCIATED TEST CELL SUPPORT EQUIPMENT	2.96	7%	9%	9%	5.45
19b OPERATE AND MAINTAIN NOISE SUPPRESSOR/HUSH HOUSE - B					
6347 MAINTAIN AIRCRAFT NOISE SUPPRESSORS OR HUSH HOUSES	2.53	5%	7%	9%	6.21
6349 OPERATE AIRCRAFT NOISE SUPPRESSORS OR HUSH HOUSES	2.43	5%	8%	11%	5.88
21b MAINTENANCE OF SMALL GAS TURBINE ENGINES - B					
2819 ASSEMBLE OR DISASSEMBLE SGT ENGINES	1.48	3%	2%	2%	5.58
21c BLOCK TESTING OF SMALL GAS TURBINE ENGINES - B					
P818 ANALYZE SGT ENGINE OPERATION DATA DURING TEST STAND RUNS	1.46	2%	2%	2%	5.45
23 ENGINE MONITORING SYSTEMS A A					
Q336 MANUALLY RECORD ENGINE PERFORMANCE OR MAINTENANCE DATA	1.40	5%	7%	8%	4.96

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B2

ITEMS FROM POI 3ABR430A WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

ITEM/TASK	FIRST-JOB PERFORMING (N=554)	FIRST- ENLISTMENT ASSIGNMENT (N=1,526)	TRN EMP*	TSK DIF**
I8b GIVEN FOUR SUPPLY STATUS TAG SCENARIOS AND SUPPLY STATUS TAG REPRODUCTIONS, USE APPROPRIATE TAG TO MAKE REQUIRED ENTRIES WITH NO MORE THAN TWO ERRORS PER TAG. (2 HRS.)				
E133 ATTACH OR ANNOTATE EQUIPMENT STATUS LABELS OR TAGS, SUCH AS DD FORMS 1574 (SERVICEABLE TAG- MATERIAL)	21%	27%	3.81	3.66
I9a WITHOUT REFERENCE, IDENTIFY BASIC FACTS CONCERNING DATA USED ON AFTO FORM 95, SIGNIFICANT HISTORICAL DATA, BY CORRECTLY ANSWERING A MINIMUM OF THREE OF FOUR PROBLEMS. (1 HR)				
E121 ANNOTATE AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	10%	12%	3.32	4.67
I9b WITHOUT REFERENCE, IDENTIFY BASIC FACTS CONCERNING DATA USED ON AN AFTO FORM 44, TURBINE WHEEL HISTORICAL RECORD, BY CORRECTLY ANSWERING A MINIMUM OF THREE OF FOUR PROBLEMS. (1 HR)				
E119 ANNOTATE AFTO FORMS 44 (TURBINE WHEEL HISTORICAL RECORD)	3%	5%	2.73	4.27

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B2 (CONTINUED)

ITEMS FROM POI 3ABR45430A WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

ITEM/TASK	FIRST-JOB PERFORMING (N=554)	FIRST- ENLISTMENT ASSIGNMENT (N=1,526)	TRN EMP*	TSK DIF**
III10a GIVEN FOUR SYSTEM SCHEMATICS, IDENTIFY SEQUENCE OF SYSTEM FLOW IN A MINIMUM OF THREE OF FOUR PROBLEMS. (2 HRS)	18%	20%	4.80	7.30
G306 INTERPRET ENGINE WIRING OR SCHEMATIC DIAGRAMS				
F100 SECTION BLOCK (000)				
III13d GIVEN A TRAINER, APPLICABLE TECH DATA, TRAINING EQUIPMENT, AND WORKING AS A TEAM MEMBER, INSPECT THE NUMBER SIX BEARING WITH NO MORE THAN ONE ERROR. (2 HRS)	17%	16%	3.66	5.49
K607 CLEAN AND INSPECT ENGINE BEARINGS				
III13e GIVEN A TRAINER, APPLICABLE TECH DATA, TRAINING EQUIPMENT, AND WORKING AS A TEAM MEMBER, REMOVE THE NUMBER SIX BEARING SEAL ASSEMBLY WITH NO MORE THAN ONE ERROR. (.5 HR)	29%	28%	3.14	6.22
K650 REMOVE OR INSTALL ENGINE CARBON SEALS				

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B2 (CONTINUED)

ITEMS FROM POI 3ABR45430A WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

ITEM/TASK	FIRST-JOB PERFORMING (N=554)	FIRST- ENLISTMENT ASSIGNMENT (N=1,526)	TRN EMP*	TSK DIF**
III3f GIVEN A TRAINER, APPLICABLE TECH DATA AND WORKING AS A TEAM MEMBER, INSPECT THE NUMBER SIX BEARING SEAL ASSEMBLY WITH NO MORE THAN ONE ERROR. (1 HR)	16%	16%	2.93	4.90
K608 CLEAN AND INSPECT ENGINE OIL SEALS				
III3g WITHOUT REFERENCE, IDENTIFY BASIC FACTS CONCERNING REPAIR OF THE NUMBER SIX BEARING SEAL ASSEMBLY BY CORRECTLY ANSWERING AT LEAST THREE OUT OF FOUR PROBLEMS. (1 HR)	7%	6%	2.00	5.26
K628 LAP ENGINE OIL CARBON SEALS				
III3h GIVEN A TRAINER, APPLICABLE TECH DATA, TRAINING EQUIPMENT, AND WORKING AS A TEAM MEMBER, INSTALL THE NUMBER SIX BEARING SEAL ASSEMBLY WITH NO MORE THAN ONE ERROR. (.5 HR)	29%	28%	3.14	6.22
K650 REMOVE OR INSTALL ENGINE CARBON SEALS				
III4a GIVEN AN F100 ENGINE, APPLICABLE TECH DATA, TRAINING EQUIPMENT, AND WORKING AS A TEAM MEMBER, REMOVE THE AUGMENTOR WITH NO MORE THAN ONE ERROR. (3 HRS)	21%	18%	1.96	4.71
K645 REMOVE OR INSTALL AFTERBURNERS OR AUGMENTORS				

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B2 (CONTINUED)

ITEMS FROM POI 3ABR45430A WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

<u>ITEM/TASK</u>	<u>FIRST-JOB PERFORMING (N=554)</u>	<u>FIRST- ENLISTMENT ASSIGNMENT (N=1,526)</u>	<u>TRN EMP*</u>	<u>TSK DIF**</u>
III4d GIVEN AN F100 ENGINE, APPLICABLE TECH DATA, TRAINING EQUIPMENT, AND WORKING AS A TEAM MEMBER, INSTALL THE AUGMENTOR WITH NO MORE THAN ONE ERROR. (2 HRS)	21%	18%	1.96	4.71
K645 REMOVE OR INSTALL AFTERBURNERS OR AUGMENTORS				
III4m GIVEN AN F100 ENGINE, APPLICABLE TECH DATA, TRAINING EQUIPMENT, AND WORKING AS A TEAM MEMBER, REMOVE THE GEARBOX MODULE WITH NO MORE THAN ONE ERROR. (4 HRS)	27%	24%	2.66	5.59
G402 REMOVE OR INSTALL ENGINE GEARBOX MODULES				
III4p GIVEN AN F100 ENGINE, APPLICABLE TECH DATA, TRAINING EQUIPMENT, AND WORKING AS A TEAM MEMBER, INSTALL THE GEARBOX MODULE WITH NO MORE THAN ONE ERROR. (5.5 HRS)	27%	24%	2.66	5.59
G402 REMOVE OR INSTALL ENGINE GEARBOX MODULES				
III6c GIVEN AN F100 ENGINE, APPLICABLE TECH DATA AND WORKING AS A TEAM MEMBER, INSPECT THE ENGINE SUPPORT EQUIPMENT FOR SERVICEABILITY WITH NO MORE THAN ONE ERROR. (1 HR)				
F157 COMPLETE AFTO FORMS 244 AND 245 (INDUSTRIAL/SUPPORT EQUIPMENT EQUIPMENT RECORD)	7%	11%	2.74	3.99

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B2 (CONTINUED)

ITEMS FROM POI 3ABR45430A WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

ITEM/TASK	FIRST-JOB PERFORMING (N=554)	FIRST- ENLISTMENT ASSIGNMENT (N=1,526)	TRN EMP*	TSK DIF**	
III6j GIVEN AN F100 ENGINE, APPLICABLE TECH DATA, TRAINING EQUIPMENT, AND WORKING AS A TEAM MEMBER, REMOVE THE FAN DRIVE TURBINE MODULE (TURBINE SECTION) WITH NO MORE THAN TWO ERRORS. (4 HRS)	14%	12%	1.64	5.71	
K661 REMOVE OR INSTALL TURBINE MODULES		14%	1.64	5.71	
III6l GIVEN AN F100 ENGINE, APPLICABLE TECH DATA, TRAINING EQUIPMENT, AND WORKING AS A TEAM MEMBER, INSTALL THE FAN DRIVE TURBINE MODULE (TURBINE SECTION) WITH NO MORE THAN TWO ERRORS. (5 HRS)		14%	1.64	5.71	
K661 REMOVE OR INSTALL TURBINE MODULES		14%	1.64	5.71	
III7a GIVEN AN F100 ENGINE, APPLICABLE TECH DATA, TRAINING EQUIPMENT, AND WORKING AS A TEAM MEMBER, REMOVE THE REAR COMPRESSOR DRIVE TURBINE ROTOR AND STATOR ASSEMBLY (TURBINE SECTION) WITH NO MORE THAN ONE ERROR. (5 HRS)		24%	24%	3.23	6.05
K664 REMOVE OR INSTALL TURBINE ROTORS		24%	24%	3.23	6.05

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B2 (CONTINUED)

ITEMS FROM POI 3ABR45430A WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

ITEM/TASK	FIRST-JOB PERFORMING (N=554)	FIRST- ENLISTMENT ASSIGNMENT (N=1,526)	TRN EMP*	TSK DIF**
III17f GIVEN FUEL MANIFOLDS, APPLICABLE TECH DATA, AND WORKING AS A TEAM MEMBER, INSPECT THE FUEL MANIFOLDS WITH NO MORE THAN ONE ERROR. (1 HR)				
X616 INSPECT ENGINE FUEL MANIFOLDS	24%	24%	2.58	5.39
III17h GIVEN FUEL NOZZLES, APPLICABLE TECH DATA, AND WORKING AS A TEAM MEMBER, INSPECT THE FUEL NOZZLES WITH NO MORE THAN ONE ERROR. (.5 HR)				
X617 INSPECT ENGINE FUEL NOZZLES	23%	24%	2.67	5.34
III17p GIVEN AN F100 ENGINE, APPLICABLE TECH DATA, TRAINING EQUIPMENT, AND WORKING AS A TEAM MEMBER, INSTALL THE REAR COMPRESSOR DRIVE TURBINE ROTOR AND STATOR ASSEMBLY (TURBINE SECTION) WITH NO MORE THAN ONE ERROR. (6 HRS)				
X66 REMOVE OR INSTALL TURBINE ROTORS	24%	24%	3.23	6.05

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B2 (CONTINUED)

ITEMS FROM POI 3ABR45430A WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

<u>ITEM/TASK</u>	<u>FIRST-JOB PERFORMING (N=554)</u>	<u>FIRST- ENLISTMENT ASSIGNMENT (N=1,526)</u>	<u>TRN EMP*</u>	<u>TSK DIF**</u>
J57 SECTION BLOCK (001)				
III15c GIVEN APPLICABLE TECHNICAL ORDERS AND WORKING AS A TEAM MEMBER, INSPECT THE NUMBER SIX BEARING INNER RACE WITH NO MORE THAN ONE ERROR. (1 HR)				
K607 CLEAN AND INSPECT ENGINE BEARINGS	17%	16%	3.66	5.49
III15d GIVEN A TRAINER, APPLICABLE TECHNICAL ORDERS AND WORKING AS A TEAM MEMBER, REMOVE THE NUMBER SIX BEARING CARBON SEAL ASSEMBLY WITH NO MORE THAN ONE ERROR. (1 HR)				
K650 REMOVE OR INSTALL ENGINE CARBON SEALS	29%	28%	3.14	6.22
III15e GIVEN APPLICABLE TECHNICAL ORDERS AND WORKING AS A TEAM MEMBER, INSPECT THE NUMBER SIX BEARING CARBON SEAL ASSEMBLY WITH NO MORE THAN ONE ERROR. (1 HR)				
K608 CLEAN AND INSPECT ENGINE OIL SEALS	16%	16%	2.93	4.90

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B2 (CONTINUED)

ITEMS FROM POI 3ABR45430^A WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

ITEM/TASK	FIRST-JOB PERFORMING (N=554)	FIRST- ENLISTMENT ASSIGNMENT (N=1,526)	TRN EMP*	TSK DIF**
III5f WITHOUT REFERENCE, IDENTIFY BASIC FACTS CONCERNING REPAIR OF ENGINE OIL SEALS BY SELECTING THE CORRECT RESPONSE TO AT LEAST THREE OUT OF FOUR PROBLEMS. (1 HR)				
K628 LAP ENGINE OIL CARBON SEALS	7%	6%	2.00	5.26
III5g GIVEN A TRAINER, APPLICABLE TECHNICAL ORDERS, AND WORKING AS A TEAM MEMBER, INSTALL THE NUMBER SIX BEARING SEAL ASSEMBLY WITH NO MORE THAN ONE ERROR. (1 HR)				
K650 REMOVE OR INSTALL ENGINE CARBON SEALS	29%	28%	3.14	6.22
III6h GIVEN ENGINE SUPPORT EQUIPMENT AND WORKING AS A TEAM MEMBER, PERFORM EQUIPMENT PRELIMINARY MAINTENANCE PROCEDURES WITH NO MORE THAN ONE ERROR. (.5 HR)				
E157 COMPLETE AFTO FORMS 244 AND 245 (INDUSTRIAL/SUPPORT EQUIPMENT RECORD)	7%	11%	2.74	3.99

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B2 (CONTINUED)

ITEMS FROM POI 3ABR45430A WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

ITEM/TASK	FIRST-JOB PERFORMING (N=554)	FIRST- ENLISTMENT ASSIGNMENT (N=1,526)	TRN EMP*	TSK DIF**
III6j GIVEN A J57 ENGINE, TRAINING EQUIPMENT, APPLICABLE TECHNICAL ORDERS AND WORKING AS A TEAM MEMBER, REMOVE THE N1 TURBINE SECTION WITH NO MORE THAN TWO ERRORS. (6.5 HRS)	10%	13%	2.43	6.08
K665 REMOVE OR INSTALL TURBINE UNIT ASSEMBLIES	10%	13%	2.43	6.08
III6o GIVEN A J57 ENGINE, TRAINING EQUIPMENT, APPLICABLE TECHNICAL ORDERS AND WORKING AS A TEAM MEMBER, INSTALL THE N1 TURBINE SECTION WITH NO MORE THAN TWO ERRORS. (7.5 HRS)	10%	13%	2.43	6.08
K665 REMOVE OR INSTALL TURBINE UNIT ASSEMBLIES	10%	13%	2.43	6.08
III7g GIVEN A J57 FUEL MANIFOLD, APPLICABLE TECHNICAL ORDERS AND WORKING AS A TEAM MEMBER, INSPECT FUEL MANIFOLD WITH NO MORE THAN ONE ERROR. (.5 HR)	24%	24%	2.58	5.39
K616 INSPECT ENGINE FUEL MANIFOLDS	24%	24%	2.58	5.39

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B2 (CONTINUED)

ITEMS FROM POI 3ABR45430A WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

ITEM/TASK	FIRST-JOB PERFORMING (N=554)	FIRST- ENLISTMENT ASSIGNMENT (N=1,526)	TRN EMP*	TSK DIF**
III7h GIVEN A J57 ENGINE FUEL NOZZLE, APPLICABLE TECHNICAL ORDERS AND WORKING AS A TEAM MEMBER, INSPECT THE FUEL NOZZLE WITH WITH NO MORE THAN ONE ERROR. (.5 HR)				
K617 INSPECT ENGINE FUEL NOZZLES	23%	24%	2.67	5.34
II:9b GIVEN A J57 ENGINE, TRAINING EQUIPMENT, APPLICABLE TECHNICAL ORDERS AND WORKING AS A TEAM MEMBER, REMOVE THE N2 TURBINE SECTION WITH NO MORE THAN ONE ERROR. (3 HRS)				
K665 REMOVE OR INSTALL TURBINE UNIT ASSEMBLIES	10%	13%	2.43	6.08
III9i GIVEN A J57 ENGINE, TRAINING EQUIPMENT, APPLICABLE TECHNICAL ORDERS AND WORKING AS A TEAM MEMBER, INSTALL THE N2 TURBINE SECTION WITH NO MORE THAN ONE ERROR. (4 HRS)				
K665 REMOVE OR INSTALL TURBINE UNIT ASSEMBLIES	10%	13%	2.43	6.08

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B2 (CONTINUED)

ITEMS FROM POI 3ABR45430A WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

<u>ITEM/TASK</u>	<u>FIRST-JOB PERFORMING (N=554)</u>	<u>FIRST- ENLISTMENT ASSIGNMENT (N=1,526)</u>	<u>TRN EMP*</u>	<u>TSK DIF**</u>
III11d GIVEN A J57 ENGINE, TRAINING EQUIPMENT, APPLICABLE TECHNICAL ORDERS AND WORKING AS A TEAM MEMBER, REMOVE THE N2 COMPRESSOR WITH NO MORE THAN ONE ERROR. (1.5 HRS)				
K651 REMOVE OR INSTALL ENGINE COMPRESSORS	26%	25%	2.94	6.64
III11g GIVEN A J57 ENGINE, TRAINING EQUIPMENT, APPLICABLE TECHNICAL ORDERS AND WORKING AS A TEAM MEMBER, INSTALL THE N2 COMPRESSOR WITH NO MORE THAN ONE ERROR. (1.5 HRS)				
K651 REMOVE OR INSTALL ENGINE COMPRESSORS	26%	25%	2.94	6.64
III13a GIVEN A F100 ENGINE, TRAINING EQUIPMENT, APPLICABLE TECHNICAL ORDERS AND WORKING AS A TEAM MEMBER, REMOVE THE AUGMENTOR MODULE WITH NO MORE THAN ONE ERROR. (2.5 HRS)				
K645 REMOVE OR INSTALL AFTERBURNERS OR AUGMENTORS	21%	18%	1.96	4.71

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B2 (CONTINUED)

ITEMS FROM POI 3ABR45430A WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

<u>ITEM/TASK</u>	<u>FIRST-JOB PERFORMING (N=554)</u>	<u>FIRST- ENLISTMENT ASSIGNMENT (N=1,526)</u>	<u>TRN EMP*</u>	<u>TSK DIF**</u>
III13c GIVEN AN F100 ENGINE, TRAINING EQUIPMENT, APPLICABLE TECHNICAL ORDERS AND WORKING AS A TEAM MEMBER, INSTALL THE AUGMENTOR MODULE WITH NO MORE THAN ONE ERROR. (3.5 HRS)				
X645 REMOVE OR INSTALL AFTERBURNERS OR AUGMENTORS	21%	18%	1.96	4.71
IV3c USING APPLICABLE TECHNICAL ORDERS, COMPLETE A SELECTED AFTO FORM 781 REPRODUCTION. NO MORE THAN TWO ERRORS ARE ALLOWED ON THE FORM. (2 HRS)				
F179 INITIATE, ANNOTATE, OR REVIEW AIRCRAFT FLIGHT OR MAINTENANCE RECORDS, SUCH AS AFTO FORMS 781 SERIES		11%	1.4%	3.64
IV44 USING A KC-135 TRAINER, APPLICABLE TECHNICAL ORDER, TRAINING EQUIPMENT AND WORKING AS A CREWMEMBER, REMOVE AN ENGINE WITH NO MORE THAN THREE ERRORS. (3 HRS)				
X577 REMOVE OR INSTALL ENGINES IN AIRCRAFT	19%	22%	3.74	6.07

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B2 (CONTINUED)

ITEMS FROM POI 3ABR45430A WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

<u>ITEM/TASK</u>	<u>FIRST-JOB PERFORMING (N=554)</u>	<u>FIRST- ENLISTMENT ASSIGNMENT (N=1,526)</u>	<u>TRN EMP*</u>	<u>TSK DIF**</u>
IV4e USING A KC-135 TRAINER, APPLICABLE TECHNICAL ORDER, TRAINING EQUIPMENT AND WORKING AS A CREWMEMBER, INSTALL AN ENGINE WITH NO MORE THAN THREE ERRORS. (3 HRS)				
1577 REMOVE OR INSTALL ENGINES IN AIRCRAFT	19%	22%	3.74	6.07
IV4g USING AN F-15 AIRCRAFT, APPLICABLE TECHNICAL ORDER, TRAINING EQUIPMENT, AND WORKING AS A CREWMEMBER, REMOVE AN ENGINE WITH NO MORE THAN TWO ERRORS. (3.5 HRS)				
1577 REMOVE OR INSTALL ENGINES IN AIRCRAFT	19%	22%	3.74	6.07
IV4h USING AN F-15 AIRCRAFT, APPLICABLE TECHNICAL ORDER, TRAINING EQUIPMENT, AND WORKING AS A CREWMEMBER, INSTALL AN ENGINE WITH NO MORE THAN TWO ERRORS. (3.5 HRS)				
1577 REMOVE OR INSTALL ENGINES IN AIRCRAFT	19%	22%	3.74	6.07

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B2 (CONTINUED)

ITEMS FROM POI 3ABR45430A WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

ITEM/TASK	FIRST-JOB PERFORMING (N=554)	FIRST- ENLISTMENT ASSIGNMENT (N=1,526)	TRN EMP*	TSK DIF**
IV5a USE APPLICABLE TECHNICAL ORDERS TO LOCATE INFORMATION CONCERNING PROCEDURES FOR PERFORMING AN HOURLY POSTFLIGHT INSPECTION. A MINIMUM OF 8 OF 10 PROBLEMS MUST BE ANSWERED CORRECTLY. (3.5 HRS)				
1566 PERFORM HOURLY POSTFLIGHT INSPECTIONS OF INSTALLED ENGINES	3%	4%	1.62	5.17
IV5b GIVEN APPLICABLE TECHNICAL ORDERS AND AN AFTO FORM 781A REPRODUCTION, DOCUMENT AN HOURLY POSTFLIGHT INSPECTION BY CORRECTLY COMPLETING A MINIMUM OF 15 OF 20 ENTRIES. (1 HR)				
1176 INITIATE OR REVIEW IN-FLIGHT ENGINE SHUTDOWN, TEST CELL REJECT, OR PREMATURE ENGINE REMOVAL FORMS	1%	2%	1.73	5.54

* Training Emphasis has an average of 1.72 and a standard deviation of 1.33
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B3

AFSC 454XOB (426X3) STS ITEMS NOT SUPPORTED BY STRICT OSR DATA

STS REFERENCE/TASKS	TRN EMP*	FIRST-ENLISTMENT (N=288)	5-SKILL LEVEL (N=518)	7-SKILL LEVEL (N=425)	TSK DIF**
10d(2) TURBINE WHEEL HISTORICAL RECORD	a/- b				
E119 ANNOTATE AFTO FORMS 44 (TURBINE WHEEL HISTORICAL RECORD)	1.70	3%	5%	9%	3.95
10d(3) ENGINE STATUS REPORT	- b				
E139 COMPLETE AF FORMS 1534 (ENGINE STATUS REPORT)	.65	3%	4%	11%	4.22
11d(14) POWER MANAGEMENT SYSTEM	- B				
G366 PERFORM OPERATIONAL CHECKS OF POWER MANAGEMENT CONTROL (PMC)	.62	1%	2%	3%	5.96
13b(3)(a) REMOVE TURBINE UNIT ASSEMBLY	2b b				
K665 REMOVE OR INSTALL TURBINE UNIT ASSEMBLIES	2.51	19%	17%	11%	6.03
13b(3)(c) INSTALL TURBINE UNIT ASSEMBLY	2b b				
K665 REMOVE OR INSTALL TURBINE UNIT ASSEMBLIES	2.51	19%	17%	11%	6.03

* Training Emphasis has an average of 1.59 and a standard deviation of 1.37
 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B3 (CONTINUED)

AFSC 454X0B (426X3) STS ITEMS NOT SUPPORTED BY STRICT OSR DATA

<u>STS REFERENCE/TASKS</u>	<u>TRN EMP*</u>	<u>FIRST- ENLISTMENT (N=288)</u>	<u>5-SKILL LEVEL (N=518)</u>	<u>7-SKILL LEVEL (N=425)</u>	<u>TSK DIF**</u>
13b(5)(a) REMOVE TURBINE ROTOR(S) AND TURBINE NOZZLE(S) 2b b					
K662 REMOVE OR INSTALL TURBINE NOZZLES	2.68	9%	8%	8%	6.00
K664 REMOVE OR INSTALL TURBINE ROTORS	2.41	13%	10%	9%	6.17
13b(5)(c) INSTALL TURBINE ROTOR(S) AND TURBINE NOZZLE(S)	2b b				
K662 REMOVE OR INSTALL TURBINE NOZZLES	2.68	9%	8%	8%	6.00
K664 REMOVE OR INSTALL TURBINE ROTORS	2.41	13%	10%	9%	6.17
13b(6)(a) REMOVE COMPRESSOR MODULE	b/- b				
K668 REMOVE OR INSTALL COMPRESSOR MODULES	1.73	10%	8%	4%	6.52
13b(6)(b) INSPECT COMPRESSOR MODULE	b b				
K614 INSPECT COMPRESSOR MODULES	2.03	11%	12%	9%	4.71
13b(6)(c) INSTALL COMPRESSOR MODULE	b/- b				
K668 REMOVE OR INSTALL COMPRESSOR MODULES	1.73	10%	8%	4%	6.52

* Training Emphasis has an average of 1.59 and a standard deviation of 1.37
 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B3 (CONTINUED)
AFSC 454XOB (426X3) STS ITEMS NOT SUPPORTED BY STRICT OSR DATA

STS REFERENCE/TASKS	TRN EMP*	FIRST- ENLISTMENT (N=288)		5-SKILL LEVEL (N=518)		7-SKILL LEVEL (N=425)		TSK DIF**
		LEVEL	LEVEL	LEVEL	LEVEL	LEVEL	LEVEL	
13b(8)(b) INSPECT ENGINE BEARINGS	2b	-						
K607 CLEAN AND INSPECT ENGINE BEARINGS		2.59	14%	13%	11%	11%	4.63	
13b(9)(b) INSPECT ENGINE OIL SEALS	2b	-						
K608 CLEAN AND INSPECT ENGINE OIL SEALS		2.14	15%	14%	9%	9%	4.21	
13b(10)(a) REMOVE OIL METERING JETS	2b	-						
K657 REMOVE OR INSTALL OIL METERING JETS		1.08	4%	5%	5%	7%	4.25	
13b(10)(b) INSPECT OIL METERING JETS	2b	-						
K623 INSPECT OIL METERING JETS		.78	3%	5%	5%	7%	4.20	
13b(10)(c) INSTALL OIL METERING JETS	2b	-						
K657 REMOVE OR INSTALL OIL METERING JETS		1.08	4%	5%	5%	7%	4.25	

* Training Emphasis has an average of 1.59 and a standard deviation of 1.37
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B3 (CONTINUED)

AFSC 454X0B (426X3) STS ITEMS NOT SUPPORTED BY STRICT OSR DATA

<u>STS REFERENCE/TASKS</u>	<u>TRN EMP*</u>	<u>FIRST- ENLISTMENT (N=288)</u>	<u>5-SKILL LEVEL (N=518)</u>	<u>7-SKILL LEVEL (N=425)</u>	<u>TSK DIF**</u>
13b(13)(b) INSPECT TORQUEMETER ASSEMBLY	2b	b			
K619 INSPECT ENGINE TORQUEMETER ASSEMBLIES			2.05	16%	15%
13b(15)(a) REMOVE INLET GUIDE VANE ACTUATING SYSTEM		-			
G420 REMOVE OR INSTALL IGV ACTUATING SYSTEM COMPONENTS		.54	8%	8%	5.22
13b(15)(b) INSPECT INLET GUIDE VANE ACTUATING SYSTEM		-			
G287 INSPECT IGV ACTUATING SYSTEMS		1.70	13%	15%	14%
13b(15)(c) INSTALL INLET GUIDE VANE ACTUATING SYSTEM		-			
G420 REMOVE OR INSTALL IGV ACTUATING SYSTEM COMPONENTS		.54	8%	8%	5.24
16b(1) REMOVE ENGINE IN TEST STAND		-	b		
N797 REMOVE OR INSTALL ENGINES IN TEST STANDS		1.97	7%	9%	7%
					4.69

* Training Emphasis has an average of 1.59 and a standard deviation of 1.37
 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B3 (CONTINUED)

AFSC 454X0B (426X3) STS ITEMS NOT SUPPORTED BY STRICT OSR DATA

<u>STS REFERENCE/TASKS</u>	<u>TRN EMP*</u>	<u>FIRST- ENLISTMENT (N=288)</u>	<u>5-SKILL LEVEL (N=518)</u>	<u>7-SKILL LEVEL (N=425)</u>	<u>TSK DIF**</u>
16b(2) INSTALL ENGINE IN TEST STAND	- b				
N797 REMOVE OR INSTALL ENGINES IN TEST STANDS	1.97	7%	9%	7%	4.69
16c PERFORM OPERATIONAL CHECKS OF ENGINE IN TEST STAND - b					
N790 PERFORM OPERATIONAL CHECKS OF UNINSTALLED ENGINES	1.65	2%	2%	1%	5.96
16d RECORD INSTRUMENT READINGS ON APPLICABLE TEST LOG - b					
N796 RECORD INSTRUMENT READINGS ON TEST LOG DURING ENGINE BLOCK TESTING	1.73	2%	4%	5%	3.46
16e USE ENGINE VIBRATION ANALYZER - b					
G372 PERFORM VIBRATION ANALYSES	1.51	9%	9%	9%	6.64
16g PERFORM PREOPERATIONAL CHECKS IN THE TEST STAND - b					
N791 PERFORM PREOPERATIONAL CHECKS OF ENGINES IN TEST STANDS	2.24	4%	5%	5%	5.52

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 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B3 (CONTINUED)

AFSC 454X0B (426X3) STS ITEMS NOT SUPPORTED BY STRICT OSR DATA

<u>STS REFERENCE/TASKS</u>	<u>TRN EMP*</u>	<u>FIRST- ENLISTMENT (N=288)</u>	<u>5-SKILL LEVEL (N=518)</u>	<u>7-SKILL LEVEL (N=425)</u>	<u>TSK DIF**</u>
16h PERFORM POST-OPERATIONAL CHECKS IN THE TEST STAND - b					
P792 PERFORM POSTOPERATIONAL CHECKS OF ENGINES IN TEST STANDS	2.00	3%	5%	4%	5.44
16j EVALUATE ENGINE WITH RESPECT TO PERFORMANCE SPECIFICATIONS	- b				
N773 ANALYZE ENGINE OPERATION DATA DURING TEST CELL RUNS	2.22	3%	6%	6%	6.80
16k(1) MAINTAIN TEST STAND	- b				
N780 MAINTAIN ASSOCIATED TEST CELL SUPPORT EQUIPMENT	2.03	4%	5%	4%	5.21
18a(13) DIAGNOSE CAUSES OF MALFUNCTIONS - INLET GUIDE VANE ACTUATING SYSTEM	- b				
G338 ISOLATE MALFUNCTIONS WITHIN IGV ACTUATING SYSTEMS	.86	8%	10%	9%	6.05
18a(15) DIAGNOSE CAUSES OF MALFUNCTION - COMBINING GEARBOX	-				
G319 ISOLATE MALFUNCTIONS WITHIN ENGINE COMBINING GEARBOXES	2.41	14%	19%	18%	6.25

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 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B3 (CONTINUED)

AFSC 454X0B (426X3) STS ITEMS NOT SUPPORTED BY STRICT OSR DATA

STS REFERENCE/TASKS	TRN EMP*	FIRST- ENLISTMENT (N=288)	5-SKILL LEVEL (N=518)	7-SKILL LEVEL (N=425)	TSK DIF**
20d SOLDER ELECTRICAL CONNECTIONS	2b b				
G471 SOLDER ELECTRICAL CONNECTIONS, OTHER THAN PROPELLER BRUSH BLOCK ASSEMBLIES	2.03	15%	18%	17%	5.15
22c(1) DISASSEMBLE PUMP HOUSING	2b/1b b				
L689 ASSEMBLE OR DISASSEMBLE PUMP HOUSINGS	3.05	11%	12%	8%	6.02
22c(2) ASSEMBLE PUMP HOUSING	2b/1b b				
L689 ASSEMBLE OR DISASSEMBLE PUMP HOUSINGS	3.05	11%	12%	8%	6.02
22d(1) DISASSEMBLE VALVE HOUSING	2b/- b				
L690 ASSEMBLE OR DISASSEMBLE VALVE HOUSINGS	2.51	7%	7%	3%	7.47
22d(2) ASSEMBLE VALVE HOUSING	2b/- b				
L690 ASSEMBLE OR DISASSEMBLE VALVE HOUSINGS	2.51	7%	7%	3%	7.47

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 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B3 (CONTINUED)

AFSC 454X0B (426X3) STS ITEMS NOT SUPPORTED BY STRICT OSR DATA

STS REFERENCE/TASKS	TRN EMP*	FIRST- ENLISTMENT (N=288)	5-SKILL LEVEL (N=518)	7-SKILL LEVEL (N=425)	TSK DIF**
22g(3) SYNCHROPHASER MAINTENANCE - REPAIR	- b	2.05	3%	4%	3% 7.31
H537 REPAIR SYNCHROPHASERS					
23d(7) SYNCHROPHASER SYSTEM TEST SET (IN SHOP)	- B	2.30	2%	2%	1% 6.63
L698 BENCH CHECK SYNCHROPHASERS					
23d(8) GTC/APU ENGINE ANALYZER	- B				
P824 OPERATE SGT ENGINE USING GTC/APU ANALYZER	2.19	8%	13%	12%	5.98
23d(9) VALVE HOUSING TEST STAND	- b				
1.727 PERFORM VALVE HOUSING TESTS	3.11	4%	5%	2%	6.43

* Training Emphasis has an average of 1.59 and a standard deviation of 1.37
 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B4

ITEMS FROM POI 3ABR45430B WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

ITEM/TASK	FIRST-JOB PERFORMING (N=88)	FIRST- ENLISTMENT ASSIGNMENT (N=288)	TRN EMP*	TSK LF***
III12p GIVEN HANDOUT AND WORKING IN A GROUP, PERFORM SELECTED STEPS TO APPLY CORROSION CONTROL PROCEDURES TO ENGINE ACCESSORIES WITH NO MORE THAN THREE PROCEDURAL ERRORS ALLOWED. (.5 HR)				
K593 APPLY PROTECTIVE COATINGS TO ENGINES OR ENGINE PARTS	18%	19%	1.92	2.59
III12d USING TO 3H1-18-2, TOOLS, J-1 HOIST, A PROPELLER, AND WORK-ING IN A GROUP, PERFORM SELECTED STEPS TO REMOVE PROPELLER CONTROL ASSEMBLY, REAR SPINNER, AND DEICING CONTACT RING WITH NO MORE THAN ONE PROCEDURAL ERROR ALLOWED. (2.5 HRS)				
L744 REMOVE OR INSTALL PROPELLER CONTROL ASSEMBLIES L731 REMOVE OR INSTALL DEICER CONTACT RING ASSEMBLIES L748 REMOVE OR INSTALL REAR SPINNER SECTIONS	13% 9% 9%	15% 11% 13%	3.16 2.35 2.38	5.51 4.06 3.94
III4a GIVEN SOLDERING EQUIPMENT, WIRE, ELECTRICAL COMPONENTS AND A HANDOUT, SOLDER ONE CONNECTION WITH NO MORE THAN ONE PROCEDURAL ERROR. THE CONNECTION MUST NOT SHOW A COLD SOLDER. (6 HRS)				
L753 SOLDER PROPELLER BRUSH BLOCK ASSEMBLIES	8%	10%	3.05	4.19

* Training Emphasis has an average of 1.59 and a standard deviation of 1.37
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B4 (CONTINUED)

ITEMS FROM POI 3ABR45430B WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

<u>ITEM/TASK</u>	<u>FIRST-JOB PERFORMING (N=88)</u>	<u>FIRST- ENLISTMENT ASSIGNMENT (N=288)</u>	<u>TRN EMP*</u>	<u>TSK DIF**</u>
III5d USING TO 3H1-18-2, J-1 HOIST, TOOLS, A PROPELLER, AND WORKING IN A GROUP, PERFORM SELECTED STEPS TO INSTALL THE REAR SPINNER, DEICING CONTACT RING, AND PROPELLER CONTROL ASSEMBLY WITH NO MORE THAN TWO PROCEDURAL ERRORS ALLOWED. (4 HRS)				
L744 REMOVE OR INSTALL PROPELLER CONTROL ASSEMBLIES	13%	15%	3.16	5.51
L731 REMOVE OR INSTALL DEICING CONTACT RING ASSEMBLIES	9%	11%	2.35	4.06
L748 REMOVE OR INSTALL REAR SPINNER SECTIONS	9%	13%	2.38	3.94
III7b USING TO 3H1-18-2, TOOLS AND WORKING IN A GROUP, PERFORM SELECTED STEPS TO DISASSEMBLE A 54H60 PROPELLER HUB AND BLADE ASSEMBLY WITH NO MORE THAN TWO PROCEDURAL ERRORS ALLOWED. (2 HRS)				
L742 REMOVE OR INSTALL PROPELLER BLADES IN HUBS	9%	12%	3.05	5.28
L736 REMOVE OR INSTALL PROPELLER BLADE BEARING ASSEMBLIES	5%	7%	2.11	4.98
L740 REMOVE OR INSTALL PROPELLER BLADE PACKINGS	8%	10%	2.43	4.19

* Training Emphasis has an average of 1.59 and a standard deviation of 1.37
 ** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B4 (CONTINUED)

ITEMS FROM POI 3ABR45430B WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

ITEM/TASK	FIRST-JOB PERFORMING (N=88)	FIRST- ENLISTMENT ASSIGNMENT (N=288)	TRN EMP*	TASK DIF**
III7d USING TO 3H1-18-2, TOOLS AND WORKING IN A GROUP, PERFORM SELECTED STEPS TO ASSEMBLE A 54H60 PROPELLER HUB AND BLADES WITH NO MORE THAN ONE PROCEDURAL ERROR ALLOWED. (2.5 HRS)				
L742 REMOVE OR INSTALL PROPELLER BLADES IN HUBS	9%	12%	3.05	5.28
L736 REMOVE OR INSTALL PROPELLER BLADE BEARING ASSEMBLIES	5%	7%	2.11	4.98
L740 REMOVE OR INSTALL PROPELLER BLADE PACKINGS	8%	10%	2.43	4.19
III8e USING TO 3H1-18-2, IDENTIFY NO LESS THAN SEVEN OUT OF TEN FACTS ABOUT ADJUSTING ELECTRICAL SWITCHES. (6 HRS)				
G244 ADJUST ELECTRICAL SWITCHES	16%	18%	3.05	5.10
IV1b USING TO 2J-T56-26, TOOLS, A T56 ENGINE, WORKING IN A GROUP, PERFORM SELECTED STEPS WITH NO MORE THAN (X) NUMBER OF PROCEDURAL ERRORS ALLOWED FOR EACH ITEM TO REMOVE THE:				
IV1b(1) TURBINE UNIT ASSEMBLY (X=TWO). (3 HRS)				
K665 REMOVE OR INSTALL TURBINE UNIT ASSEMBLIES	17%	19%	2.51	6.03

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** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B4 (CONTINUED)

ITEMS FROM POI 3ABR430B WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

ITEM/TASK	FIRST-JOB PERFORMING (N=88)	FIRST- ENLISTMENT ASSIGNMENT (N=288)	TRN EMP*	TSK DIF**
IV1b(3) OIL METERING JETS (X=ONE). (2 HRS)				
K657 REMOVE OR INSTALL OIL METERING JETS	3%	4%	1.08	4.25
IV1b(6) TURBINE ROTOR AND TURBINE NOZZLES (X=ONE). (1 HR)				
K662 REMOVE OR INSTALL TURBINE NOZZLES	8%	9%	2.68	6.00
K664 REMOVE OR INSTALL TURBINE ROTORS	14%	13%	2.41	6.17
IV1e USING TO 2J-T56-26, IDENTIFY TWO OUT OF THREE PROCEDURES ON INSPECTION OF THE COMPRESSOR MODULE. (.5 HR)				
K614 INSPECT COMPRESSOR MODULES	8%	11%	2.03	4.71
IV1f USING TO 2J-T56-26, AND HANDOUTS (ITEMS TWO AND FIVE), TOOLS, A T56 ENGINE, WORKING IN A GROUP AND WITH NO MORE THAN (X) NUMBER OF PROCEDURAL ERRORS ALLOWED, INSPECT THE:				
IV1f(2) ENGINE BEARINGS (X=ONE). (.5 HR)				
K607 CLEAN AND INSPECT ENGINE BEARINGS	16%	14%	2.53	4.61

* Training Emphasis has an average of 1.59 and a standard deviation of 1.37
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B4 (CONTINUED)

ITEMS FROM POI 3ABR45430B WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

<u>ITEM/TASK</u>	<u>FIRST-JOB PERFORMING (N=88)</u>	<u>FIRST- ENLISTMENT ASSIGNMENT (N=288)</u>	<u>TRN EMP*</u>	<u>TSK DIF**</u>
IV1f(5) ENGINE OIL SEALS (X=ONE). (.5 HR)	17%	15%	2.14	4.21
K608 CLEAN AND INSPECT ENGINE OIL SEALS				
IV1f(6) OIL METERING JETS (X=ONE). (.5 HR)				
K623 INSPECT OIL METERING JETS	3%	3%	.78	4.20
IV1k USING TO 2J-T56-26, TOOLS, A T56 ENGINE AND WORKING IN A GROUP WITH NO MORE THAN (X) NUMBER OF PROCEDURAL ERRORS ALLOWED, INSTALL THE:				
IV1k(1) TURBINE ROTOR AND TURBINE NOZZLES (X=FOUR). (6 HRS)				
K662 REMOVE OR INSTALL TURBINE NOZZLES	8%	9%	2.68	6.00
K664 REMOVE OR INSTALL TURBINE ROTORS	14%	13%	2.41	6.17
IV1k(4) OIL METERING JETS (X=ONE). (2 HRS)				
K657 REMOVE OR INSTALL OIL METERING JETS	3%	4%	1.08	4.25

* Training Emphasis has an average of 1.59 and a standard deviation of 1.37
** Task Difficulty has an average of 5.00 and a standard deviation of 1.00

TABLE B4 (CONTINUED)

ITEMS FROM POI 3ABR45430B WITH LESS THAN 30 PERCENT
ALL FIRST-TERMERS PERFORMING

ITEM/TASK	FIRST-JOB PERFORMING (N=88)	FIRST- ENLISTMENT ASSIGNMENT (N=288)	TRN	TSK
			EMP*	DIF**
IV1k(6) TURBINE UNIT ASSEMBLY (X=Two). (6 HRS)				
K665 REMOVE OR INSTALL TURBINE UNIT ASSEMBLIES	17%	19%	2.51	6.03
IV1o USING TO 2J-T56-26, TOOLS, A T56 ENGINE AND WORKING IN A GROUP, PERFORM SELECTED STEPS WITH NO MORE THAN (X) NUMBER OF PROCEDURAL ERRORS ALLOWED, ACCOMPLISH THE FOLLOWING:				
IV1o(2) INSPECT THE TORQUEMETER ASSEMBLY (X=ONE). (1 HR)	13%	16%	2.05	4.72
K619 INSPECT ENGINE TORQUEMETER ASSEMBLIES				
VI4c GIVEN TO 00-20-5, COMPLETE AFTO FORM 781 SERIES FOR AN AIRCRAFT INSPECTION, WITH NO MORE THAN FOUR ERRORS ALLOWED. (2 HRS)				
E179 INITIATE, ANNOTATE, OR REVIEW AIRCRAFT FLIGHT OR MAINTENANCE RECORDS, SUCH AS AFTO FORMS 781 SERIES	16%	24%	2.97	4.64

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** Task Difficulty has an average of 5.00 and a standard deviation of 1.00